THE BUILDER

A JOURNAL FOR THE ARCHITECT & CONSTRUCTOR

VOL. CXLII. JANUARY 1, 1932. No. 4639

612 + 13

New Business Premises, Rye Lane, Peckham, S.E.

MESSRS. NORTH, ROBIN AND WILSDON, Architects.

MEETINGS

MONDAY, *January* 4.

Hammersmith Public Lectures. Mr. Percy Lovell on "The Bridges of London." At the Central Library, W.6. 8 p.m.

Royal Institute of British Architects. General Meeting: Award of Prizes and Studentships. Criticism by Mr. E. Berry Webber on Work submitted for Prizes and Studentships. 8 p.m.

TUESDAY, *January* 5.

College of Estate Management. Mr. W. T. Creswell on "Contracts of Sale of Land," etc. 5.30 p.m.

WEDNESDAY, *January* 6.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "German Renaissance, 1500-1900." 6 p.m.

Institution of Heating and Ventilating Engineers. Mr. E. L. Oughton on "Coal Gas as a Fuel for Hot-water Supply and General Heating." At 20, Hart-street, W.C.1. 7 p.m.

Institution of Structural Engineers (South Wales Branch). Mr. E. Taylor on "Steel Bridges." At Cardiff. 7 p.m.

FRIDAY, *January* 8.

Institution of Structural Engineers (Midland Counties Branch). Mr. H. E. Brooke-Bradley on "Bridge Foundations." At Derby.

MONDAY, *January* 11.

Architectural Association. Mr. Graham B. Tubbs on "The A.A. Excursion to Austria, 1931." 7 p.m.

Chartered Surveyors' Institution. Mr. P. W. Lovell on "The Genius of Wren." 8 p.m.

Institution of Mechanical Engineers. Informal Meeting. 7 p.m.

MONDAY-FRIDAY, *January* 11-22.

Architectural Association. Exhibition of Photographs of Buildings visited on the A.A. Excursion to Austria, 1931. 10 a.m. to 10 p.m.

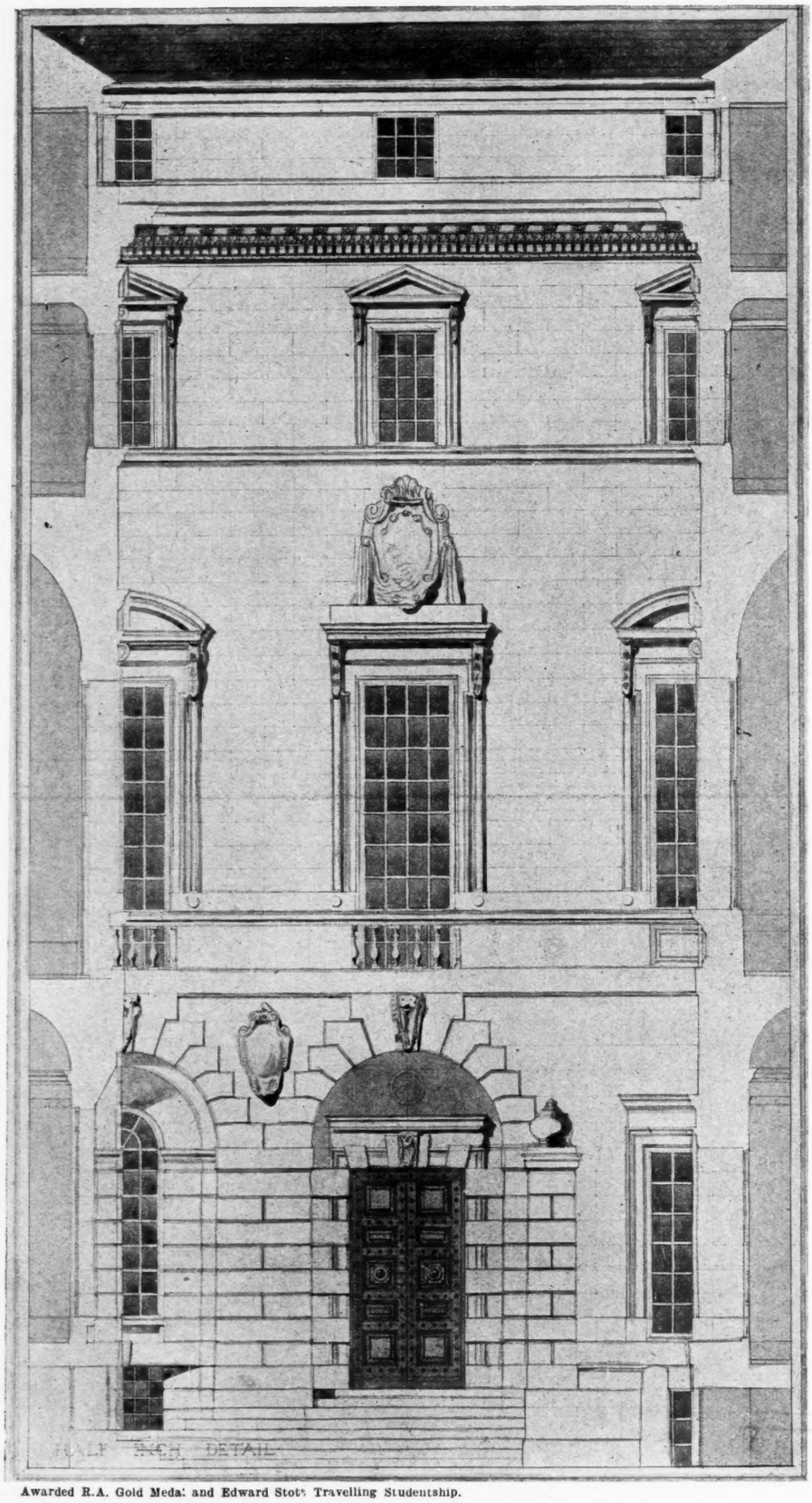
TUESDAY, *January* 12.

Institution of Heating and Ventilating Engineers (Manchester District). Discussion on "Heating Engineers' Specialities." At Manchester. 7 p.m.

WEDNESDAY, *January* 13.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "Belgian and Dutch Renaissance, 1500-1900." 6 p.m.

Manchester Society of Architects. Mr. Joseph Emberton on "Rational Architecture." 6.30 p.m.



Awarded R.A. Gold Medal and Edward Stott Travelling Studentship.

Design for a London Club-house.

By Mr. W. F. Howard.

(*See also pages* 19 & 20.)

SEASIDE AMENITY

THE present moment seems rather appropriate to give some thought to the problem of the growth of our seaside towns and their hinterland, and the defective control of building in such regions which too often turns natural advantages into places to be avoided at all costs, beautiful scenery into a sordid collection of shacks tipped out of some architectural dustbin, and country roads into wide and unsightly traffic routes, besprinkled with petrol pumps and advertisements.

It is probably true that quite a considerable proportion of the visitors to our seaside resorts rather like vulgarity in architecture, but still there is a large section, which includes most of the residents, and probably their more valued patrons, who abhor these horrors and wish for better things. To these the coming of control in the form of town planning is welcome, and it should not be too great a task to convert the Philistines, for there is no real reason why a seaside place should not have all the varied attractions needed by the holiday-makers and at the same time preserve its architectural character.

If we examine any of the well-known and most popular seaside towns on the South Coast we are struck by the fact that in those which are most popular: Brighton, Weymouth, Hastings, Broadstairs, Margate and Ramsgate, there is a solid foundation of good architecture in the long lines of the terraces and crescents which face the sea—architecture with considerable merit and suitability, where the unit is not the individual house or small cottage, but a group or line of houses forming one architectural composition. Quite possibly many of these are not of particularly good design when considered individually, but they have the saving grace of unity instead of discord, and combine to emphasise the natural lines of the sea-front or promenade instead of destroying it by too great a diversity of expression.

The mere fact that these towns retain their popularity suggests that there is a considerable value in civic design. Peacehaven is not a serious rival to Brighton, and this might, and indeed should, encourage the councillors of populous seaside towns to take timely steps to preserve the amenity and character of their districts while there is yet time.

Among the many pleasant stretches of country with an outlook on the sea none are better known and consequently more in need of preservation than South-East Sussex* and the northern side of Kent,† and it is therefore heartening to find that both these districts are taking thought for future development by the modern method of preparing a regional plan.

The area covered by the South-East Sussex scheme is roughly triangular in shape and extends along the coast from a little east of Winchelsea to a point midway between Bexhill and Pevensey, while the apex of the triangle inland nearly touches Tunbridge Wells.

This region is fortunate in two respects: firstly, because as its population and chief industry is agricultural it has escaped the damaging influence of the industrial development of the past century; and secondly, because "of the wise management of their estates by the great landowners," which is only now beginning to be replaced by the less desirable development of land speculators and small owners.

It is interesting to note that the population of the region is centred in Hastings and Bexhill, which both show considerable increase in recent years, while the population of the rest of the area remains stationary or, in some cases, shows a slight decrease. In fact, as the authors of the report point out, 70 per cent. of the total population is located in an area of less than 2 per cent. of the whole. This considerably facilitates the problem of planning future development, as "unless some unforeseen factor arises very little development is anticipated in the rural districts." But the need for control of the agricultural districts is real, because they are at present unspoiled, and it is proposed that all new buildings in addition to being sanitary and soundly constructed should be designed so as to be in harmony with their surroundings, with a "zoning" of one house to the acre as a matter of course, and grouped development at a density of not more than eight to the acre by consent. The reservation of the low-lying ground or "levels" as purely agricultural is recommended, on two grounds: firstly, because being liable to flooding it is unsuitable for building; and, secondly, because it provides excellent pasturage.

There is a different story to tell when we come to the "Development areas," and we agree with the authors of the report that something should be done to check unsuitable building without delay, especially in the Pett and Fairlight district, and in the neighbourhood of Rye and Winchelsea, where "the miscellaneous collection of huts and disused tramcars that are rapidly making their appearance in these places are beginning to do what may easily become irreparable damage from the point of view both of amenity and of rateable value."

On this question of the preservation of amenity, it is pointed out that the first thing to do is to make sure that the bungalow dweller and the owner of the little detached or semi-detached house shall not be allowed to regard the whole of the countryside or sea coast as his perquisite, and having achieved this by a scheme of zoning the next step is obviously to impose some form of control of elevations. Here the authors rightly insist that what is required is not so much a restriction in style or the individual character of a collection of small buildings, but rather some control in the direction of co-ordinating the various units into a harmonious group by the elimination of discordant elements, both in design and material.

The report contains, in addition, a section on communications, with recommendations that the railway services might be improved and that bridges should take the place of level crossings. With regard to the road system no considerable alteration is proposed, but it is recommended that as a general principle a few of the main routes should be improved. Greater width is required in urban areas for footways and stopping-traffic in front of shops, etc.

Some sound advice which, although not new, is valuable, is given with regard to the planning of road junctions, "the weakest links in the chain" of main routes. "Many junctions would be safer with a little more order and a little less space. . . . the general appearance of a town and its streets depends on the arrangement and treatment of buildings around the street junctions," is one point to which it is particularly desirable to direct attention.

The other district—the North-East part of Kent—likewise possessed of considerable natural beauty and a series of historic towns, between the Greater London area and the newly developing East Kent coalfield, is traversed by the principal lines of communication with the Continent, and "combines the functions of a 'buffer state' with those of a wide and agreeable corridor between the coast and the capital." The region, like South-East Sussex, is mainly agricultural, and the population is centred in a few large towns, such as Rochester, Chatham, Maidstone, Gravesend and Sittingbourne. It is divided into two parts by the ridge of the North Downs, and on each side a main traffic route connects London with the coastal towns of Kent and Sussex.

The most important problem is the preservation of the high ground of the North Downs, and from the report we learn that it appears practicable to reserve (in conjunction with the schemes of adjoining joint committees) the whole stretch of this magnificent open tract from Charing to Kemsing as a public open space. A similar reservation is proposed for the marshes of the Thames and Medway, and it is suggested that Cobham Park and Leeds Castle should be acquired, if these come into the market, as permanent open spaces. The report also deals with the question of zoning; three categories are suggested: urban, limited to extension of existing towns; industrial, chiefly around the Medway estuary; and agricultural, which comprises a large proportion of the whole region.

The more notable recommendations are that a new by-pass road should be provided to lessen delay or congestion for through traffic from London to Canterbury and the coast; this would avoid the Medway towns, but entails a new bridge over that river. In other respects many of the recommendations are identical in the two reports; this, although logical, is a defect, as it suggests a kind of mass production method which is incompatible with the regional plan and survey.

* "South-East Sussex Regional Planning Scheme." Adams, Thompson and Fry. Illustrated with maps and photographs. 10s. The Town Hall, Hastings.

† "North-East Kent Regional Planning Scheme." Adams, Thompson and Fry. Illustrated with maps and photographs. 7s. 6d. The Town Clerk, Gillingham, Kent.

NOTES

Wisdom and Economy.

It must have struck all of us that the stoppage of building work involves so much loss in the value of labour, not only direct, but indirect, that the economies obtained are liable to a large discount. Is the price to be paid for economy beyond our ability to pay? Do we sufficiently realise that some £250 millions are spent annually in Great Britain on building work? And that perhaps 7½ millions are dependent on the industry? We must surely endorse the words of the Prime Minister that there are circumstances under which a cutting down for the sake of cutting down is, especially at this moment, the greatest disservice that can be done to the nation. And yet the economies arranged by local authorities show a cut of some £13 millions worth of work.

An Appeal.

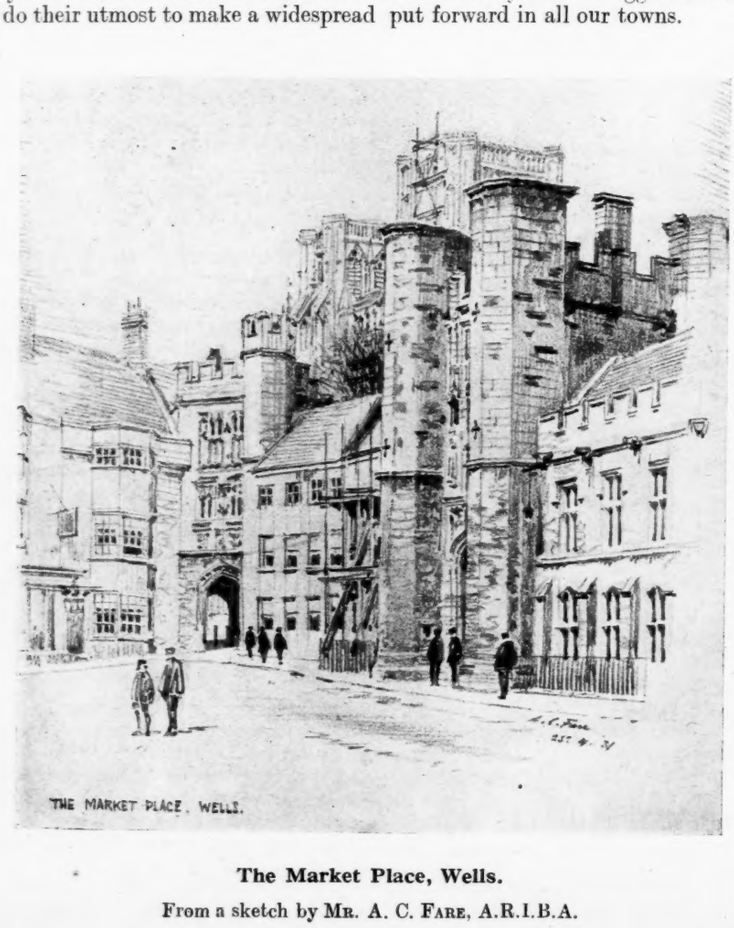
Nothing we can say is needed to add significance to the appeal issued by the President of the R.I.B.A. for support in aid of the Architects' Unemployment Committee. Dr. Unwin points out very clearly the distressing conditions which prevail, and all who can support the Architects' Unemployment Committee should do so. Though everyone is suffering from the present conditions, it is sincerely to be hoped that all who have any real sympathy with their fellows in misfortune will do their utmost to make a widespread success of the President's appeal. The President's suggestions are set forth on another page.

The R.I.B.A. Premises Competition.

We publish in our correspondence columns this week a letter over the nom de plume of "Naked Truth," as not only is it by a well-known "F.R.I.B.A." but it gives expression to views of the same kind which have reached us from time to time since the competition for the new R.I.B.A. premises was inaugurated. The points raised are, of course, matters for the consideration of the Council of the Institute, and the only comment we need make is that since the conditions of the competition were settled and designs were invited much has happened that may justify a review of the circumstances.

Help for Artists.

A much-needed appeal on behalf of artists was made by Sir Wm. Rothenstein by means of his recent broadcast. It is difficult to see where the aid needed is to come from whilst those who have it in their power to commission the work of painters, decorators and sculptors are so indifferent to the claims of art. It is partly, we believe, because it appears to be thought so costly a business to employ artists. But as a matter of fact much might be done by a simple, unambitious fund to provide many opportunities for our students and some professional artists to put forth their powers. Acres of dull, empty spaces might be made graphic in form and colour if only artistic suggestions could be put forward in all our towns.



The Market Place, Wells.

From a sketch by Mr. A. C. Fare, A.R.I.B.A.

Competition Hints.

It seems as though the last word would never be said about competitions. We have just come across some quite useful remarks on competitions, which form the subject of an article in the Year Book of the South-Eastern Society of Architects, by Mr. E. Berry Webber. He believes in the value of competitions, especially to the clients, and he is not in favour of limited competitions, or in competitions divided into two parts, the preliminary and the final. He thinks the specialist is inclined to run in a groove, and he thinks the best could be obviously selected in the preliminary competition. He thinks the open competition is a gamble, about 50 to one, but that it is worth it. We think his remarks savour of good common-sense, and they are worth the attention of us all. Those who read these remarks will be led to the obvious conclusion that one who has been himself so successful is right in warning the competitors against careless or rapid conclusions. A subject must be considered from every possible angle and with every possible freshness of effort so as to obtain clear and unbiased vision. Another thing we would add: it is a mistake to take for granted that the conditions and suggestions given necessarily point in the best direction.

Art and "Common-sense."

The daily Press illustrate a new clock on Shell-Mex House, described as a rival to "Big Ben," and stated to be second only to the latter. This is indeed a deplorable time-keeper. Hideous, coffin-like lumps take the place of the customary beautiful Roman numerals. If we look at the specimens of our old English clocks in the Guildhall Museum, clocks by Tompion, Graham and others, we see craftsmanship, beauty and utility. Compare these with this modern monstrosity! It is not of English origin, but apes or copies Germany or Holland, and we hope such specimens will not be adopted here.

The De Morgan Collection at Old Battersea House.

Old Battersea House, which has now been purchased by the Borough Council of Battersea and scheduled as a National Monument, will now contain a valuable collection of De Morgan ceramics, as well as paintings by the late Mrs. De Morgan (Evelyn Pickering), and some works by her master, Roddam Spencer Stanhope, who lived and painted at Florence. Spencer Stanhope and his pupil, Evelyn Pickering, may be called the last of the pre-Raphaelites, and their work preserves the refinement, the purity of colour and beauty of type so characteristic of that movement in art. Evelyn Pickering herself was a fine figure draughtsman, and some of her works, preserved here, possess great imagination; while the pottery of her husband, much of which was actually fired in Battersea, needs no commendation and has steadily gone up in public esteem and actual value. The old Manor House will now provide a beautiful art centre for Battersea.

The Vatican Library.

THE news of the sudden collapse of the Vatican Library roof will have been received with very real regret. It is difficult to understand how the precarious condition of the building was not discovered in time so that remedial steps could have been taken. The official *communiqué* states that: "The general opinion in the Vatican is that the disaster was due not to any defect in the roof or the supporting pillars of the Sala Sistina, but to the weakness of the foundations of the buildings. It is recalled that the building was completed in as little as 12 months and, like most of the edifices erected by Pope Sixtus V., was known to be somewhat carelessly built. In fact, workmen had been engaged for some time in strengthening the basement, but these operations had been undertaken rather as a measure of precaution, and had not been dictated by any sign of impending danger." The announcement that the Pope has appointed a commission to investigate the causes of the disaster may have the effect of instituting searching surveys into the condition of other national monuments.

Property Owners and Rents.

ALTHOUGH the high rents that were being charged for luxury flats in London have recently been reduced, generally speaking, property owners in most towns have not reduced rents to any great extent, especially of middle-class house property. A recent complaint regarding this non-reduction brought the answer: "Neither have rates gone down." Several local authorities have recently been able to make a reduction of a few pence from the rates, but there has scarcely been a general reduction of any appreciable amount; in some cases it has been necessary to increase the rates. While it is agreed that some property owners are receiving high rents for their houses, one cannot fairly compare them with local authorities, which let large housing scheme houses at uneconomic rents. When these housing schemes are a charge on the rates, it means they are chiefly being financed by people living in larger houses, who number amongst them the property owners charging high rents. On the other hand, at the present time there is much agitation on some local authorities for municipal housing scheme rents to be reduced, and appeals are being made to the Ministry of Health in various cases for permission for this to be done. There is consequently a great deal of competition for municipal cheap-rented houses, and one can often find the man who has to pay Income Tax living in them, while the poorer man, who does not pay tax, cannot get a cheap house, and, consequently, force of circumstances makes him pay the high rent of the private property owner. It does not seem fair for local authorities to reduce housing scheme rents and charge the rates in order to do so, and have such an advantage over the private property owner, the latter having to pay these high rates and consequently increase his rents before having a sound property investment bringing in a reasonable income.

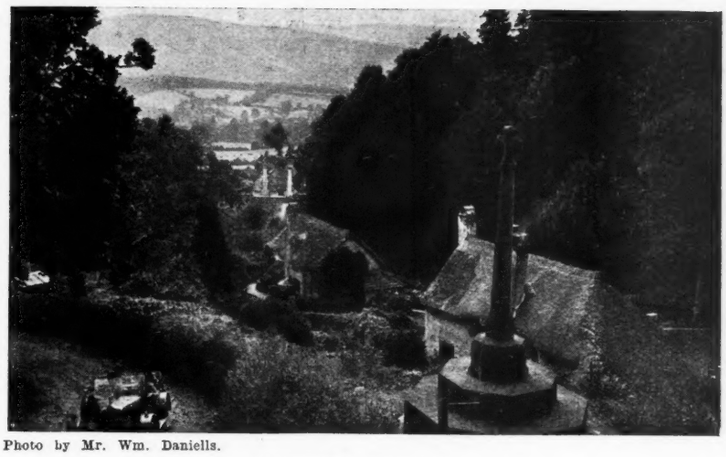


Photo by Mr. Wm. Daniells.

Selworthy, Somerset.

The Development of London.

THE London County Council has decided to continue a grant, although on a very much reduced scale, towards the expenses of the Greater London Regional Planning Committee. There is reason to believe that the contributions from other local authorities will also be continued, on a similarly reduced scale. While it should be just possible to keep up to date the surveys already made and to issue in due course the report on the proposed planning of the area, for which much of the material is already prepared, the curtailment, as Dr. Raymond Unwin has said, will imply a severe contraction of the work of the Committee at a time when its urgency and importance are increasing owing to the rapid developments taking place within the region. We believe that never will an economy have been so dearly bought as the money saved by these reductions of the Committee's grant. Even if the ideals of a green belt round London and a proper relation between industrial and housing development make little appeal, surely the spectacle of the twin evils of traffic congestion and house shortage (largely due, as we have often pointed out, to the absence of a plan for London's growth) should have effect. We appeal to the London County Council to set an example by doing its part towards setting on a permanent, instead of the present almost casual, basis a Committee on whose efforts the proper development of London so largely depends.

Road Transport

A SUMMARY of the present volume of world commercial road transport issued by the Society of Motor Manufacturers and Traders shows that the United States of America leads the world with a total of 3,495,134 commercial vehicles carrying goods or passengers. Great Britain is second with 432,570, and the Union of South Africa last. The United States has one such vehicle for every 35 people; Great Britain one for every 112. The value of the world's commercial motor vehicles is put at over £400,000,000. The average tax per vehicle is lowest in the United States (£6.56), and it is highest in Great Britain, where "the total taxation direct and indirect in a full financial year from all forms of motor transport may be estimated to reach no less a figure than £55,000,000, making the average tax (including fuel tax) over £35 per vehicle." The memorandum pleads for "the abolition or reduction to a minimum of all taxation on transport for general revenue purposes," and also "the administration of taxation, when imposed, as a common fund under State control, for the benefit of transport development. . . . The engineers and manufacturers are in a position to afford the means for opening up of avenues of transportation. At present, however, one finds instances in the Empire where the only means of communication is by man or beast, whilst, on the other hand, attempts are made in almost every Dominion and Colony to bolster up uneconomic railway systems by endeavouring to hinder the development of competitive forms of transport."

The Value of Forestry.

QUITE an attractive publication through its fine photographs of forest growths is the Empire Forestry journal just issued. The Forestry Commission is doing a good deal of valuable work, and its activities in regard to Kashmir are of especial interest, for the Forest Department of Kashmir is stated to be the largest revenue producing department in the State. Very interesting is the descriptive matter published in the journal as to the methods and processes adopted to get the full value out of all these wonderful forests.

English Design in Foreign Hands.

IT should not be forgotten that whilst we hear so often criticisms on the inefficiency of English productions, we have evidence of foreign reproductions of English work, and probably these are sold in this country as of special value as coming from abroad. Professor Richardson has done a good service in exposing this trend of piracy.

GENERAL NEWS

Professional Announcements.

Mr. Herbert J. Rowse, F.R.I.B.A., has removed to Martins Bank Building (5th floor), Water-street, Liverpool. Telephone: Bank 345.

The telephone number of Mr. Leslie Kemp, A.R.I.B.A., 38, John-street, Bedford-row, W.C.1, has been changed to Holborn 7274.

The Vatican Library.

A first visit was paid on Tuesday to the library by the Commission appointed by the Pope to ascertain the causes of the disaster. The Commission is composed of the Commandant of the Roman Fire Brigade and of two officials of the Public Works Department of the Vatican City.

Incorporated Association of Architects and Surveyors.

We are informed that Mr. Thomas Moore, President-in-Chief of the Institute of South African Architects, has been elected a Fellow of the Incorporated Association of Architects and Surveyors.

Mural Paintings at India House.

A series of new mural paintings—allowed for in Sir Herbert Baker's design—have been completed by a team of Indian artists at India House, Aldwych. The work, done in tempera direct on to plaster, represents four epochs of Indian history in a continuous design. The four artists are Mr. S. Chaudhury, Mr. S. N. Sen, Mr. R. Ukil, and Mr. D. K. Barma.

Building Materials Committee: Resignation and Appointment.

The Minister of Health and the President of the Board of Trade have accepted with regret the resignation of Major the Rt. Hon. John W. Hills, D.S.O., M.P., as chairman of the Inter-Departmental Committee appointed to survey the prices of building materials. They have appointed Sir Samuel Roberts, Bart., M.P., to be chairman of the Committee.

Pershore Abbey.

A movement has been started to enlist a greater and more widespread support for the upkeep of the Abbey Church of Pershore, Worcestershire. The building was founded in A.D. 689, and the present walls date from the twelfth and thirteenth centuries. It is, therefore, proposed to unite all who care for the preservation of this heritage into a body of "Friends of Pershore Abbey," whose sole concern shall be the maintenance and restoration of its fabric. Colonel Hudson, Wick House, Pershore, has accepted the presidency. It is proposed to issue an annual report and to hold a special service in the Abbey for the Friends on June 28, St. Peter's Day, each year.

New Scholarships in Design and Craftsmanship.

In view of the present problems in the gold and silver trade, and bearing in mind the necessity for the preservation of the highest type of design and craftsmanship as a factor indispensable to its well-being, the Worshipful Company of Goldsmiths have offered to contribute £200 per annum to found six scholarships tenable at the Jewellers' and Silversmiths' School, Vittoria-street. The Birmingham School of Art Sub-committee have gratefully accepted the offer, and have authorised the scheme to be put into operation next term. Two scholarships are to be awarded annually, covering a full period of three years and providing for a total of six students.

St. Paul's Cathedral.

Canon Alexander, preaching at St. Paul's on Sunday, December 27, gave a brief survey of the Cathedral's history during the past year. He said that the western end of the building had taken on a new beauty and distinction by the reseating of the nave and by the cleaning and recolouring of its piers and roofs. But nothing in their year's history had been more important than the testing of the dome itself to ascertain how it was responding to the finished work of preservation. Day by day a small company of experts had been watching the building, and day by day their observations had been recorded; and the results had showed that no movement had followed the completion of the work. These daily observations would be continued for at least two years longer.

A Link with Ruskin.

A tablet which for many years was thought to be lost has been found among the flagstones in a newly laid footpath at Carshalton. Examination revealed that the stone bore the following inscription:—

"In Obedience to the Giver of Life, of the Brooks and Fruits that Feed it, of the Peace that Ends It, May This Well be Kept Sacred for the Service of Men's Flocks and Flowers and Be By Kindness Called Margaret's Well. This Pool was Beautified and Endowed by John Ruskin, M.A., LL.D."

It has now been ascertained, says *The Times*, that the stone was originally erected near Margaret's Pool, Carshalton, which Ruskin, at his own expense, cleaned out and named Margaret after his mother, who lived close by at Shirley.

OBITUARY

Maurice Greiffenhagen, R.A.

With great regret we have to record the death of Mr. Maurice William Greiffenhagen, at the age of 69. Born in 1862, Greiffenhagen studied at the Royal Academy School where he was more than usually successful, winning the Armitage prize, the cartoon medal and other awards. His easel works over a great number of years had stood out in the Academy by virtue of their vigour and excellent arrangement and grouping. His portraits, especially, attracted much interest, particularly those of men—where his bold brush treatment served him well. Greiffenhagen's sense of the relation of the brush arts to architecture was responsible for him carrying out many commissions in mural painting, the latest example of which was, we think, the decoration of the British Pavilion at the Antwerp Exhibition in 1930. He executed also some excellent poster designs. Greiffenhagen was made A.R.A. in 1916 and R.A. in 1922. He was LL.D. of Glasgow University (where he was for some time in charge of the Life Department at the Art School), and received gold medals at Munich in 1897 and Dresden in 1901 and honourable mention at Pittsburg in 1907.

Frederick Walters, F.S.A.

We regret to record the death of Mr. Frederick Walters, F.S.A., the distinguished church architect, which occurred recently at Dover. Mr. Walters, who was eighty-three years of age, designed many Roman Catholic churches, among the better-known of which are the Church of the Sacred Heart, Edge Hill, Wimbledon (one of his finest works); and St. Anselm and St. Cecelia, Kingsway. He was the architect for the rebuilding of Buckfast Abbey, Devonshire, which is now approaching completion.

George Watt, F.R.I.B.A.

We regret to record the death of Mr George Watt, F.R.I.B.A., on December 18, at his residence, Bieldside House, Aberdeenshire. Mr. Watt, who was in the advanced sixties, was for many years a prominent personality in the architectural world of the North of Scotland, and designed a number of important public buildings in Aberdeenshire. He was a son of the late Mr. George Watt, a partner in the firm of Messrs. Fordyce & Co., builders, and served his apprenticeship as an architect with Messrs. Marshall Mackenzie & Son, Aberdeen. Subsequently he was for several years with Messrs. Campbell, Douglas & Sellars, Glasgow, but returned to Aberdeen and entered into partnership with Mr. Alexander Brown under the firm name of Brown & Watt. Among the important public works for which the firm was responsible was the Oldmill Hospital, on the outskirts of Aberdeen, and the Aberdeen Public Library.

"THE USES OF AN ARCHITECT"

SIR,—I am told that reports of a popular lecture on "The Uses of an Architect," which I gave at the R.I.B.A. on October 30, represent me as disparaging members of the Institute and/or architects in general, and/or the Registration Act, and/or the whole lot. I have not seen any report that justifies this view, and I am sure that no one who heard me imagined anything of the sort; but as I was addressing the lay public at the invitation of the Institute, the idea that I should choose that occasion to do what I have never done on any other—namely, discredit my own calling—is detestable to me, and I shall therefore be much obliged if you will let me record what I did actually say, which was—briefly:—

That before discussing the "uses of an architect" it was necessary to know what an architect was; that this was so obscure a matter that when, in 1865, architects objected to the appointment of Captain Fowke, R.E., as architect of the exhibition buildings, on the ground that he was "not an architect," and the exhibition committee then asked "What is an architect?" the objectors were quite unable to answer the question; that an architect was, in fact, no more than any man, woman or child who could persuade anyone to pay him, her or it to design and direct the erection of a building; but that when, in years to come, the Architects' Registration Act was fully established, the word "architect" would at last mean a definite thing—it would then mean a quack, a charlatan, an impostor, for properly trained and educated architects would then be known as "Registered Architects."

It seems to me that this—making allowance for the facetious devices of a lecturer—is a true and exact statement of facts; and I was concerned solely with the meaning of the *word* "architect," and offered no actual or implied comment of any kind whatever on architects, members of the Institute, or the Registration Act.

H. B. CRESWELL.

COMPETITION NEWS

Granite as Building Material.

The Cornish Quarry Masters' Association, in order to promote the study of granite as a building material under modern conditions, invite members of the Architectural Association to submit designs in competition for a bank façade in granite. The Council of the Architectural Association, at the request of the Cornish Quarry Masters' Association, have appointed Mr. A. B. Knapp-Fisher, F.R.I.B.A., Mr. C. Lovett Gill, F.R.I.B.A., and Mr. Verner O. Rees, F.R.I.B.A., to advise them on the conduct of the competition, and to act as their assessors. They will also appoint a member of their Association as an additional assessor. The bank is to be in an important street in a large industrial town. The centre part of the frontage will be occupied by a large window to the banking hall. No restriction is imposed as to the style of architecture adopted for the design of the façade, but competitors are asked to study how best to utilise granite as a facing material or otherwise. A prize of £50 is offered. Full details are contained in the issue of the *Architectural Association Journal* for December, 1931, and designs must be sent to the Secretary, Architectural Association, 34, Bedford-square, W.C.1, by March 31. Specimens of various methods of dressing granite blocks may be seen at the Materials Bureau of the Architectural Association at No. 7, Bedford-square, W.C.1.

Stoke Golding Church.

The committee for this competition have selected the designs submitted by Messrs. George Baines and Son, FF.R.I.B.A., A.I.Struct.E., 121, Victoria-street, Westminster, S.W.1, and it is intended to proceed with the work in the spring.

CORRESPONDENCE

The R.I.B.A. New Premises and Help for Architects.

SIR,—The President has made an excellent appeal to the members of the Institute on behalf of those who are suffering from the consequences of the difficult position of the financial world.

I think that the R.I.B.A. itself could render very much timely aid if it would forgo the project of building new premises and devote the funds allocated for this object to the direct support of architects and their assistants at the present juncture.

I have always regarded the building of new premises as a luxury. It cannot be said that the present premises are insufficient for the work the R.I.B.A. undertakes. They have been enlarged and added to several times. I have never heard of its public meetings being filled to overflowing and do not believe that the provision of new premises will bring larger audiences. The library, certainly, is not well housed, but those who use it are accommodated without difficulty. There is always ample space in well-lighted rooms for its various exhibitions, and though its clerical staff may not have the most convenient premises possible, they can, no doubt, manage.

The R.I.B.A. has never been an architects' club, nor in the schedule of accommodation required is there any suggestion that it should be made one. It is true that it is proposed to incorporate in the proposed building accommodation for letting purposes, but the proportion this bears to the whole accommodation asked for will not make the new buildings a commercial proposition. I think the idea that a new building will be an advertisement to the profession as a whole and one worth paying heavily for is a myth. It is not necessary to build it in order to show what architectural design can be made, for every new building erected serves the same purpose.

I suppose the total cost of the new buildings may amount to anything from £100,000 to £150,000. Half of such a sum would go far to finance the very useful suggestions made by Dr. Unwin in connection with the replanning of areas in our great cities, and this would surely be a greater monument to the profession than the building of what I am inclined to call the "White Elephant of Portland-place."

NAKED TRUTH.

"The Future of English Domestic Architecture."

SIR,—I have read with very great interest your report of Mr. Darcy Braddell's lecture on this subject delivered recently to the Sheffield and South Yorkshire Society of Architects. His accusation of vested interests affecting the evolution of architecture seems rather far-fetched. It may apply to antique dealers and decorators, but cannot apply to architects.

Mr. Braddell would have us believe that forms which have persisted for hundreds of years have no significance and that the wisdom of all the ages, and more, is to be found in the creed of the modernist. Forms which have persisted throughout the ages must have a deeper root than that of mere surface decorations. In many cases they embody an idea which conveys some definite message to the human mind, and, as such, play a definite part in human expression.

There is no evidence to support his theory that concrete is either desirable or wise for domestic work. Its only excuse may be cheapness. We know of cases where many thousands of pounds have had to be spent harling concrete housing schemes, within a few years of erection, as it was found impossible to keep them watertight.

To state that because glass can now be rolled "almost any size," small panes are therefore a mistake, is about as sound as saying that because lead can be cast in large sheets, a roof should be covered with large sheets without rolls. The modernist evidently ignores the cost of upkeep in this matter.

To quote from your report:—"Mechanism, he had not the smallest doubt, was the beginning of a new style. Whether it would grow out of its present form so as to be unrecognisable in a few years, only the future could tell, but that was what he hoped and believed would happen." (So do we.) From this we must infer that the modernist does not know where he is going. We have often thought so. If it does not claim to be based on reason, logic, economy, function and fitness the modernist movement must be assumed to be a passing phase. The cost of upkeep of a house mainly of concrete, glass and metal must be considerable for heating and cooling alone, apart from breakages.

Assuming that it is based on logic, an art which is based on mere logic will not take us far. If Mr. Braddell will read certain quotations from Lethaby, which, I understand, will appear in the New Year number of *The Builder*, he will find that the search after "A New Style," according to Lethaby, is futile.

Beauty is to be found not in mere proportions, and not even in contrasts of curve to line and in modelling, but in inherent qualities which are evolved from the inner consciousness of man. It is deeper than logic or reason, and man's progress in search of beauty must be slow from the fact that it is only evolved by the combined efforts of the deepest thinkers and subconscious workings of the human mind through generations. It is absurd to say that traditionalists are mere copyists. Every true worker has his own expression to put into even a cyma recta, ovolo or the proportions of a fillet.

Speaking of roofs, if a pitched roof had not been found in actual practice to be more easily made watertight than a flat roof it would have been discarded centuries ago.

To quote again from your report:—"Hundreds of people would try it (modernism) and would not understand what they were doing, and some very dreadful little houses would result." This would indicate that the "new style" is fairly easy to copy. We thought so. From the evidence produced it would appear that the modernist is a greater copyist than the traditionalist is accused of being. He rushes about the Continent for a few weeks or months looking for the latest. He sees an angle window by Le Corbusier, and without any special functional reason copies it. He sees work like the Bad Reichenhall Terminus of the Predigt-Stuhl Cableway, Garmisch-partenkirchen, Bavaria, and proceeds to introduce its features into a suburban villa.

One may predict with certainty that many modernist buildings of glass and steel will have to be scrapped because of the great difficulty and cost of upkeep and heating. The modernist will have to produce sounder reasons to justify his beliefs than anything Mr. Braddell has stated.

Civilisation has taken wrong turns before, but one may be a real traditionalist without desiring to stem the tide of progress. If reinforced concrete and glass can give us something to equal in beauty the Parthenon and Chartres, the right man has not yet arrived.

WILLIAM DAVIDSON.

"The Road to Prosperity."

SIR,—*The Builder* rightly considers the financial stability of the nation as a matter for anxiety, but, judging from your review, it is doubtful whether the above-named book will add anything useful to the attempts being made to better things.

From your review and leading article of December 18 the argument of the book appears to turn on the supposed fact that the "employer" cannot get his price so long as the workers' wages are maintained at a high level. Further, that there are only two parties concerned with the production of goods, the employer and the worker.

Dealing with the latter statement first, it is incomplete. I suppose that even in the most primitive society there exists a medium of exchange for goods and services, if only cowrie shells. Certainly in our society there is a financial or credit system which should act as petrol to a motor-car. Thus there are three parties to the production of goods—employer, worker, and financier; but to put it more correctly and completely—producer, consumer, and medium of exchange. There is nothing much wrong with the first two, as the book appears to admit quite correctly, so that it is to the medium of exchange or credit finance we must look for a remedy.

Costs are divided, in the book, into wages, salaries, and profits only; no mention appears to be made of overhead costs, which are the principal charges on industry at the present time, and of these charges the chief is the repayment of bank loans.

In Major C. H. Douglas's works, "Social Credit," etc., costs are analysed as wages, salaries, dividends (including profits), and overheads. The first three are purchasing power distributed by the manufacturer—let A represent them and let B represent the overheads. Then purchasing power distributed during the making of anything is A; the price of the same thing is A + B, and, whether A be reduced or not, the equation remains the same. Therefore, industry never can sell all it produces. Hence these tears.

As to unemployment being a "disease"—it is not; it is leisure, machine-made and freeing mankind from grinding labour. If the object of our industrial system is to provide work, then that end would be best achieved by doing away with the system. Under existing financial and moral conditions, labour-saving machines are merely wage-withholding devices.

ARTHUR WELFORD.

[Replying briefly to the points raised:—

(1) The argument of the book, as we understand it, is that the employer cannot obtain a profit so long as the workers take too large a share of the value of what they have produced. Under existing conditions, prices have fallen more rapidly than wages, and the cash value of wages is, therefore, too high.

(2) The employers and the workers are the only two parties who produce goods, The financial, or credit, system is a natural development to replace the method of barter for disposing of the goods. It is, however, only required when goods have been produced. As a "medium of exchange" it does not enter into the production of goods; it merely provides an efficient way of disposing of them after they are produced.

(3) Production can only include wages, salaries, and profits; there is nothing else to divide. The overhead costs of one industry represent the wages, salaries, and profits of some other industry. Therefore, the whole of production represents purchasing power, and industry can sell all that it produces; in point of fact, when industry is fully employed, there is never any difficulty in selling the whole of the production.

(4) Unemployment. There is all the difference in the world between unemployment, or enforced leisure, and leisure bought as the result of efficient work and production. Leisure, in its true sense, must be paid for by work, and it can be increased only by improved work and machinery or by a reduction in the standard of living. The whole trouble to-day is that, through a misunderstanding between employers and workers, no use is being made of the machinery that is available. Consequently there is a great deal of enforced leisure and a much poorer standard of living than there would be if industry were functioning normally.—ED.]

Elgin Marbles' New Home.

SIR,—Mr. G. B. Athoe states a number of self-evident truths in his letter on this subject, but that does not alter the fact that one would have liked to see the architect who did such fine work at the British Museum appointed to carry out the new gallery.

WILLIAM DAVIDSON.

ARCHITECTURAL WORK IN SOUTH AFRICA

By STANLEY D. ADSHEAD.

Within the last few years there appear to have been influences at work which have produced quite a new spirit in the architecture of South Africa. This is largely due to the influx of young architects from this country, many of whom have emanated from our recognised schools.

Cape Town has its traditional architecture. It can boast of many picturesque examples of the Dutch influence, and there are also fine examples of the Greek revival, as, for instance, the spire of the old Catholic Church, which, unfortunately for Cape Town, is to be taken down to give space for the extension of the new Cathedral. This is a free copy of the spire of St. Pancras Church, in Woburn-place. Its removal is regrettable, as it forms a splendid termination to one of Cape Town's main streets. There is also a very interesting example of modern Gothic in the new Roman Catholic church. If, in a few words, one might describe the buildings in the main streets of Cape Town, it would be safe to say that the big stores and commercial buildings show a marked American influence, and at the same time a desire to embody the details of early Dutch.

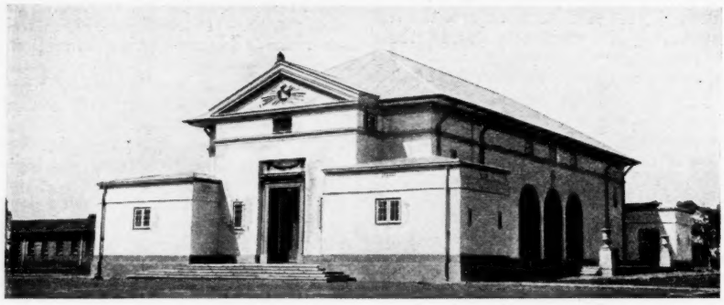
Johannesburg has no real history, and commenced with the erection of big business premises. Most of the town dates from the end of last century, and in many of the buildings we see the influence of Norman Shaw. It possesses an ambitious town hall that might have been designed by the late Henry T. Hare. But many of the buildings and small houses that have been more recently erected are confessions of an admiration for the work of Sir Herbert Baker, whose influence in the mass movement of architecture in South Africa has been enormous. His principal building, the Houses of Parliament, in Pretoria, is but thirty miles from Johannesburg, across country that reminds one of Salisbury Plain. More interesting, however, to the student of architecture are the modern towns of Northern and Southern Rhodesia, especially Bulawayo and Salisbury. These contain many buildings which, though modest in scale, are as inspiring and as fresh as contemporary examples from Europe or America.

In reviewing the architecture of South Africa, it must be remembered that all towns, without exception, are laid out on a chessboard plan. Cape Town, owing to its site, which bounded by Table Mountain ends suddenly as it recedes from its outer edges, has a more or less picturesque boundary; most of the chessboard plans in other towns end with the broken edges of a grating. Johannesburg is composed of a hundred patches, each of which is a small chessboard plan. The street systems in each patch rarely synchronise: hence we get queer and ill-shaped junctions at every turn.

Both in Cape Town and Johannesburg the streets are comparatively narrow, 50 to 60 ft., and it is in the width of their streets that the newer towns of Bulawayo and Salisbury differ. Here the buildings are mostly one story, the streets are all arcaded, or rather "verandahed," and they are from 90 ft. to 110 ft. wide. Thus they have the appearance of spaciousness rarely experienced in cities of the Old World, and are exceptional in this respect amongst the most modern of European towns. The delicate reflections from their smooth, white plastered surface, their strong shadows, and the contrast set up by the moving crowd of coloured people, make these modern cities of Central Africa extremely exhilarating.

As has already been mentioned, within quite recent years it has happened that many important architectural appointments in South Africa have been given to young architects who have emanated from architectural schools in this country. As examples, there is Mr. Flutter from the London University School of Architecture, who is the official Architect to the Government of Northern Rhodesia; also Mr. Norburn from the London University School of Architecture, who is architect to the Public Works Department at Nairobi; and there is Mr. W. J. Roberts, who holds the position of Director, Public Works Department in Southern Rhodesia. Mr. Roberts was educated at the University of Manchester, and, whilst mentioning names, it would be an omission not to speak of Mr. Furner, partner in the firm of Kallenbach, Kennedy & Furner, whose work in Johannesburg and throughout the Free State is outstanding. Mr. Furner emanated from the London University School of Architecture.

The Government of Southern Rhodesia has control, and is responsible for, the erection of all public buildings in that colony; the two more important towns, Salisbury and Bulawayo, are amongst the newest in the world. Southern Rhodesia became a self-governing colony so recently as 1923, and although the foundations of these two very modern towns actually date from about 1890, they have grown practically during the present century. Southern Rhodesia is the youngest self-governing colony in the British Empire; it has a white population of about 50,000, is about 151,000 square miles in area, and, as has been mentioned, was annexed to the Crown and granted responsible government in 1923. Between 1890 and that year the country was administered by the British South African Company under Royal Charter. In 1899 the railway from the Port of Beira, in Portuguese East Africa, was completed to Salisbury, the capital of the Colony. This greatly facilitated the easy importation of building materials, so that at the end of the Great War the British South African Company began erecting certain public buildings, including schools, out of loan funds; but it was not until the Colony assumed responsible government that any marked building activity was evident. Since that date some 1½ million pounds have been expended on Government buildings.



New Government Buildings, Southern Rhodesia.

Mr. W. J. Roberts, A.R.I.B.A. (Director of Public Works, Salisbury), Architect.

The buildings illustrated have been erected since 1927 by the Public Works Department, and indicate the diversity of the problems which have had to be handled. This Department has charge of such varying Government Departments as relate to agriculture, law, medicine, posts and telegraphs, defence and general administration.

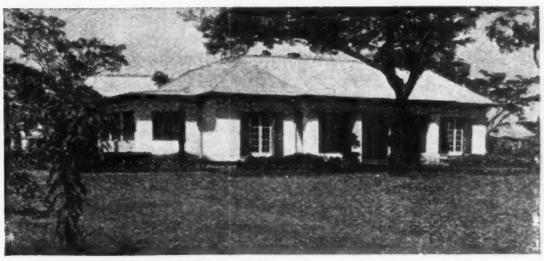
With this slight introduction as to the conditions which have recently obtained in regard to the erection of public buildings in Southern Rhodesia, one would like to refer to the works of Mr. W. J. Roberts in particular. Compared with the work previously carried out in Salisbury—which includes a very interesting club, which it is understood was designed by the late Mr. Masey—the recent work stands out as a great advance. It would be hardly fair to Mr. Roberts to say that the quality of his work is due to his early education in England at the Manchester University, though one can see the influence of his early education in this country; his work shows more than the successful results of education; it is indicative of a sympathetic outlook which, whilst showing an appreciation of the peculiarities and requirements of a South African colony as regards choice and use of materials, at the same time shows great knowledge of style, and whilst everywhere exhibiting a tendency towards new and fresh results, evinces a scholarly appreciation of the architecture of the Renaissance in Italy.

Generally, one might say that this architect has based his style on Italian models, and, with a masterly freshness which it is delightful to see, has resuscitated the character of some of the simpler buildings of Italy. One would like to refer in particular to his little Beitbridge Government Offices, which is a charming composition with colonnaded centre and solidly designed ends. Mr. Roberts has designed many buildings not only in Salis-

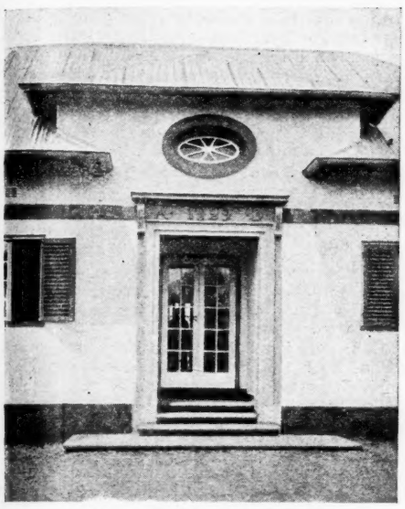
New Government Office, Court House, etc., Queque.

Mr. W. J. Roberts, A.R.I.B.A. (Director of Public Works, Salisbury), Architect.

Officers' Quarters, Salisbury.



Bungalow of Mr. W. J. Roberts.

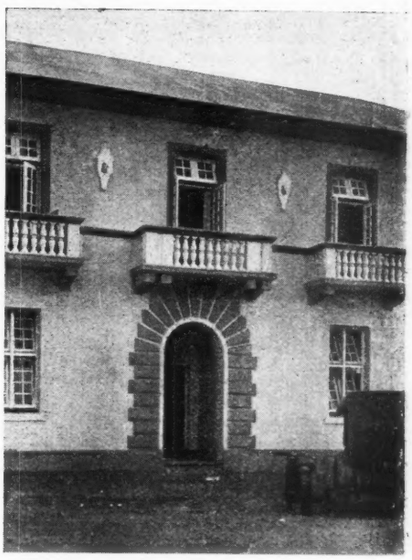


New Residency, Gwelio.

bury, but throughout Southern Rhodesia, and during my recent visit to South Africa I had the pleasure of seeing most of his work in Salisbury and Bulawayo. He has carried out a very delightful group of military buildings in Salisbury, where also he has recently erected a large new post office and many smaller buildings. I was particularly delighted with his officers' club-house—a low-"verandahed" building reminiscent of Italy, with a central loggia very cleverly managed, with angle columns.

His post office in Salisbury is a very solid building with a splendid overhanging roof, and it struck me as being big and well managed in its scale. It has a fine base and two stories, and its wall surface is unbroken by any string or cornice at the first floor.

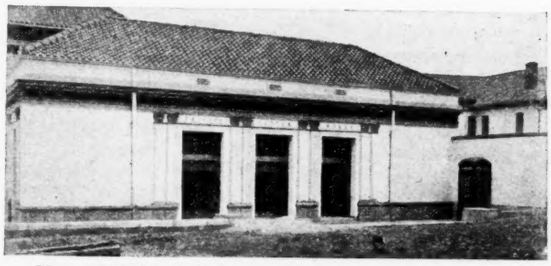
He has also built a post office at Bulawayo, a two-story building with well-detailed doors and windows, in big unbroken surfaces. Amongst his lesser important works should be mentioned a girls' high school at Salisbury and his own beautifully detailed little bungalow.



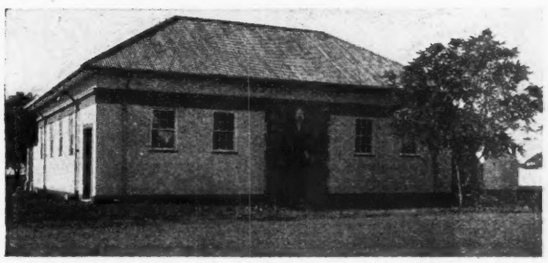
Town Police Building, Bulawayo.

New G.P.O., Salisbury.

General Hospital, Salisbury.



New G.P.O., Salisbury: East elevation (private boxes annexe).



Custom House, Southern Rhodesia.

RECENT ARCHITECTURAL WORK IN SOUTH AFRICA.

MR. W. J. ROBERTS, A.R.I.B.A. (Director of Public Works, Salisbury), Architect.

CAN WE AFFORD TO ECONOMISE?

By R. COPPOCK

(General Secretary, National Federation of Building Trade Operatives)

"THAT the price to be paid for economy may be beyond the ability to pay may not have occurred to many, but it is a grave possibility which many of our people may yet feel to their cost. The slogan of national economy is political in its origin, and has been used with great public force. It is doubtful, however, whether those who originated it had the slightest idea as to how it would be interpreted by the people to whom it was addressed, or gave any considered thought to the almost catastrophic consequences which would follow it. Neither did they appreciate the huge figure it would cost in money value, or the national impoverishment it would bring in its train.

It would be wise to examine the repercussions of this policy before plunging wildly into it. The business life of a nation and its productivity are the source of its wealth and national revenue. It is, therefore, a very dangerous experiment, in our desire to prune our expenditure, to cut down too far, because we may easily thereby destroy our national industries. It must be remembered that our own people cannot be expected to meet their added financial responsibilities if we proceed to bankrupt industry by false ideas of national economy.

In one industry more than any other does this apply, and that is the building industry. This industry absorbs the greatest number of workers and employers, and it has ramifications in almost every other industry—*i.e.*, the iron and steel, chemical, furnishing, transport (sea, rail, and road), brick, stone, cement, timber, paint, rubber, sand, gravel, ballast, etc., trades; and the trades and professions affected are many—*i.e.*, architects, surveyors, quantity clerks, estimators, builders, public contractors, etc., brickmakers, bricklayers, carpenters and joiners, painters, plasterers, and several other trades.

Putting on one side the manufacturing side of the industry and omitting the professional men and technicians, in the erection of buildings alone some 850,000 operatives and 50,000 employers are concerned, and it is estimated that, in all, the industry has to find a livelihood for nearly 1,500,000 persons.

It is computed on good authority that the sum annually spent in building in Great Britain is £250,000,000, so that the above figures rather under than over estimate the personnel employed. Furthermore, if five in family be taken as the average in Great Britain, 7,500,000 are dependent upon the industry. To plunge this colossal number of people into financial difficulties should not be the desire of any body of politicians, but this is actually being done as a result of the advocacy of national economy.

The word was sent round to local authorities that they must retrench especially in any capital commitments which they were about to embark on, and it is to the subsequent action of many of these bodies that the attention of the National Federation of Building Trades Operatives has been drawn. The retrenchment has been drastic, and a return of the economies made by 151 local authorities shows that no less a sum than £43,000,000 worth of work has been cut. These cuts include all classes of civic buildings, such as town halls, mental institutions, libraries, schools, elementary, secondary and technical, sewerage schemes, bridges, electric power plants, baths, clinics, hospitals, tram and bus depots, housing and roads.

A complete return of these cuts is not yet to hand, as data is still outstanding from many large centres, but the facts already at the Federation's command are sufficiently devastating. It is not possible to get the figures for work held up by private enterprise, but there is no doubt of its reaction to the slogan, as is clear from the building trade unemployment figures, which are increasing week by week, and the general paralysis which is settling on the industry.

Architects and surveyors are complaining that their desks are empty; manufacturers have no forward orders; bricks are stacked in millions in the yards of the producers. This applies to all the supplies necessary for the industry. The capital in raw materials lying idle at the depots throughout the country is enormous, and must be of serious consequence to the manufacturers.

This is the actual position of this vast industry. It must be obvious, therefore, that the price for national economy of this kind is too costly, and real statesmanship must be applied to release the industry from the bondage in which the slogan has involved it.

To build is wise spending, as the cost of this false stagnation is truly alarming. The cost in unemployment benefit to those thrown on the streets by the Government's policy will exceed £8,000,000, not to mention the capital cost of stored-up material and the revenue which would have accrued from the wise expenditure on the millions "saved." The effect of these losses upon the national finances will be marked, as will also be the demoralising effect upon all those engaged in the industry and their dependents. The price to be paid for these economies is more than can be borne, and calls for immediate action.

[The following extract from a speech by the Prime Minister in the House of Commons on December 9 is of interest in connection with Mr. Coppock's article :—

"I would emphasise to the House and to the country that the action which the Government took and which the last Government took, was forced upon them by the national conditions and had to be taken swiftly. May I offer one word of warning both to individuals and public authorities? I hope that this cry of economy is not going to be made a stunt. . . .

"There are too many people, both private individuals and public authorities, who imagine that simply by cutting down expenditure they are doing a service to the nation. There are circumstances under which a cutting down for the sake of cutting down is, especially at this moment, the greatest disservice that people can do to the nation. The most uneconomic place for money is a stocking, and the most uneconomical use for capital is to fail to find employment for the working man. Therefore, the policy of public authorities and private individuals, while economical and while following the same rules that we have had to lay down for ourselves, must always have regard to the relative value of cutting expenditure and reducing demands for labour; and, unless every public authority proposing to cut down examines its proposals from that point of view, it may not be giving the assistance to the nation which we all wish it to give."]

Cardinal Bourne opened on Tuesday the new parish hall of St. Monica's, Palmers Green, which has been built by direct labour. He said that to build at the present time was a work of charity to the country. He had just returned from Rome, where the Pope had told the College of Cardinals that a good deal could be done by building to give people work. The Pope had personally made himself responsible for finding work for 8,000 men.

ARCHITECTS' UNEMPLOYMENT COMMITTEE

WE have received from Dr. Raymond Unwin, P.R.I.B.A., the following letter on unemployment in the architectural profession :

SIR,—The unemployment in the architectural profession is rapidly reaching unprecedented dimensions. With the stoppage or postponement of municipal and private building, architectural assistants are being thrown out of work at short notice, and in many cases this is causing dire distress. It is difficult to obtain accurate figures, but we believe that by Christmas there will be a large number of architects out of work, and unless a great change takes place in the situation the appalling numbers which are reported from New York and elsewhere may well be approached.

Under these circumstances, the Royal Institute of British Architects, in conjunction with the Association of Architects, Surveyors and Technical Assistants and the Architects' Benevolent Society have been considering what can or should be done to help those who through no fault of their own are suddenly deprived of the means of earning a living. It is desirable, first, to find work for as many as possible; and second, to provide maintenance where necessary.

As to the first part : the Institute and the London Society are already taking steps to carry further the survey and planning of London, with special reference to providing practical suggestions for the clearance of slums and for the improvement of the City which may be a guide for the future. On this work some of those who are out of employment and need assistance can be occupied, thus reviving an organisation which proved very useful during a difficult period caused by the Great War. It is proposed that similar steps should be taken in other cities, so that, under the directions of a local panel of architects and others, some work useful to their several communities may be carried out, and those who require maintenance may as far as possible have the satisfaction of being usefully employed and of gaining some valuable experience.

As to the second part : funds will be required to pay men for whom such work can be found, but the number who can be employed under this proposal is obviously limited, and the distress of those who cannot be given work must also be relieved. Our suggestion for providing the necessary funds, both for paying the maintenance of those employed on the surveys and for helping those who have no employment at all, is, briefly, that every architect in work should contribute to help those architects who are out of work.

The method of collecting the money is outlined below, and we appeal for the assistance of every member of the profession to help to put it into general practice throughout the coming time of stress. It is proposed that all those who do not at present contribute to the National Unemployment Insurance Fund by means of the official stamps, *i.e.*, everyone earning more than £250 a year, should give, as a minimum, the equivalent, *i.e.*, 1s. 7d. per week, to the Architects' Unemployment Fund; and the employer, also as a minimum, should contribute the same amount per week for every such man in his employment. The money would be collected in the different offices throughout the country and sent monthly to the Secretary of the Unemployment Committee, c/o the R.I.B.A. The amount received would be acknowledged in the R.I.B.A. Journal.

It would be of great assistance to the Unemployment Committee if, in all offices where the employers or staff are prepared to adopt these proposals, one of their number could be asked to communicate with the R.I.B.A., giving the date when they would be able to commence the contributions.

RAYMOND UNWIN,
President, Royal Institute of British Architects.

P.S.—All communications should be addressed to the Secretary, Architects' Unemployment Committee.

LIVERPOOL ORPHANAGE COMPETITION

THERE are a number of arguments for and against the competition limited to architects in a given area, but provided the general standard of practice in the locality is high, this type of competition is to be recommended. It ensures that the architect will be able to keep in close touch both with his clients and with the job, and that he will be familiar with local conditions. The exhibition of twenty-three designs for the Liverpool Orphanage now being held in the Royal Institution, Liverpool, is proof of the success of this competition, which was limited to architects practising within a radius of ten miles of Liverpool Town Hall. On account of this limitation, the requirements of the Orphanage Committee will not be widely known, and it is necessary to give a short description of the general conditions set and the suggestions of the assessor, Mr. A. H. Moberly, F.R.I.B.A. The Committee of the Orphanage, following the tendency of similar organisations, has decided to remove the Home from congested city quarters into more congenial country surroundings. The land owned by the Orphanage is approximately a rectangle bounded by roads on two sides, but the position of the actual buildings was limited to the easterly half with a frontage on to Woolton-road, which forms the south boundary. There is a fall of five or six feet across the site.

The Orphanage will serve the dual purpose of a home and a school for 200 children, of both sexes, ranging from infancy to 15 years. Most competitors have followed the suggestion of the assessor that boys' and girls' accommodation should generally be kept on opposite sides of the building, although the school classes are mixed. The main accommodation asked for is as follows:—Dormitories for both sexes with ablution rooms and conveniences; playrooms, playground and cloakrooms; day and night nurseries, with two nurses' bedrooms and bathrooms; living and sleeping accommodation for the staff; a sick block, with dispensary, kitchenette and nurses' bedroom; classrooms, woodwork shop, domestic science and administration offices; a dining hall to seat 200, with kitchen, stores, etc.; a laundry, sewing-room and wardrobe rooms. The dining hall is to serve as the assembly hall for the time being, but provision is to be made for future addition of the latter. The chief problems to be solved were as follows:—

(*a*) The difficulty of arranging all the accommodation to serve practical requirements, yet to create a "home" and not an "institution."
(*b*) To provide this accommodation at a minimum cost.
(*c*) To obtain good aspect and cross-ventilation to a large number and variety of rooms.
(*d*) The main playing fields must be at the side and not at the rear of the building.
(*e*) The provision for future building of the assembly hall.
(*f*) Isolation of the sick block.
(*g*) To what extent the school should be dissociated from the home. Undoubtedly from a psychological point of view it would be better to have the two entirely separate, but for reasons of economy it was suggested by the assessor that they might be combined.

Most competitions are for buildings for which there is ample precedent, such as schools, town halls, libraries and art galleries, but there has been no competition similar to the Orphanage for a number of years. Competitors had to decide on a type of plan best suited to the somewhat mixed requirements. The solutions submitted suggest the following sources of inspiration :—

(1) The school house plan, as generally adopted for larger boarding schools with day rooms on the ground floor and dormitories above arranged as wings with the administration between.
(2) The secondary school with enclosed courts and central assembly hall.
(3) A compromise between (1) and (2), such as the adoption of the quadrangular plan for the ground floor with the school house winged plan rising above.

The plan of the winning scheme by Messrs. Barnish, Silcock and Thearle is definitely of the school house type and is to a great extent the outcome of a desire to obtain the right aspect for the greatest possible number of rooms. The ground floor has one main corridor running east and west. The administration is in the middle, flanked on the west by four classrooms, and on the east by two classrooms and the day nursery. At the extremities of the main corridor long projecting wings running north and south accommodate the playrooms on the south with workshops, laundry and cookery room on the north. Sanitary blocks and cloakrooms form appendages to these wings. The future assembly hall and the dining room are shown to balance each other and are placed directly behind the main entrance hall. The kitchen quarters form an open court on the east side of the plan. This is an exceedingly well-arranged group, allowing the kitchen to serve the dining hall, staff dining hall, etc., and the stores are conveniently situated for use by the domestic science room.

On the first floor, administrative rooms are placed over the main entrance, with teachers' bedrooms and night nursery over the ground-floor classrooms. Dormitories, with good light and cross ventilation, are placed over the wings which run north and south. Lavatory blocks are suitably superimposed over ground-floor lavatories. The second floor is more or less a repetition of the first floor, except that the central part is here devoted to the sick block. Considerable ingenuity has been exercised in order to obtain the necessary privacy and cross-ventilated lobby, which was demanded by the conditions.

After careful consideration of the designs submitted there can be no doubt that the scheme awarded the first premium is an easy winner. Not only does it satisfy the requirements of plan in an efficient and economical manner, but it is pre-eminently the finest architectural conception submitted. One would have more confidence in the success of the competition system if assessors would insist that the standard of architectural design should be at least as good as the plumbing arrangements. The fine long ridge lines of the composition in the winning scheme are the logical result of a simple arrangement of plan, and the building appears to belong to the site. The small additional cost of drainage caused by placing the buildings as far from the road as possible is amply justified by the fine terrace and greensward which will act as a foreground as well as providing an excellent playing space on the sunny side of the building. Advantage has been taken of the site levels to place the building in such a position that the minimum amount of levelling will be necessary. The delightful character of the elevations is enhanced by a curious treatment of the windows of the main block. It is safe to say that most designers, faced with a plan with ground-floor windows arranged to satisfy the Board of Education regulations but with first- and second-floor windows to bedrooms, would be tempted to place the latter vertically over the necessarily closely spaced windows below. Here, however, the authors have indicated no definite connection between ground and first floors, the relation of window opening to wall space being maintained in a horizontal direction only. This frank admission of the different character of the upstairs accommodation has given a happy domestic elevation. In the wings running north and south the upstairs areas are much less than those required for the playrooms on the ground floor, and the latter have been allowed to project considerably in front of the upper stories, producing an effect of exaggerated zoning. It would be interesting to see this in a model before the building is erected. The presentation of the scheme is very charming, and in character with the nature of the programme. It is understood that the completed building will cost about £50,000.

The second prize design, by Messrs. Willink and Dod, appears to have a very economical plan. The buildings are grouped round a large court, the classrooms forming a single story on the south side, the dining and assembly halls being on the east and west, whilst the north side is occupied by the main block three stories high with projecting playrooms at the extremities. The kitchen and general service quarters are grouped around a subsidiary court of the main building. The two upper floors contain the dormitories and other sleeping accommodation, well arranged with good lighting and ventilation generally, although the orientation of the sick block might be better. The authors have adopted the interesting expedient of building the assembly hall in the main scheme, this hall to be used as the boys' playroom temporarily.

The design by Messrs. Briggs and Thornely, placed third, groups the accommodation around two more or less enclosed courts, which are divided into playgrounds and a number of small gardens. The plan differs considerably from the first and second premiated designs in the arrangement of the dormitories, which are here placed on the main south front of the building. A feature in common with Messrs. Barnish, Silcock and Thearle's scheme is the arrangement of the assembly hall and dining-room side by side in the centre of the plan, both approached directly from the entrance hall. These two main rooms are not, however, so happy in proportion, lighting or dignity of approach as those in the winning scheme. The plan would appear to have been evolved from the initial carefully-worked-out dormitory units. Considerable attention has clearly been devoted to the involved requirements of the building by-laws regarding escape staircases. The elevations are orderly and possess a certain dignity.

An interesting example of the non-quadrangular type of plan is that by Messrs. Thomas & Holt, whose general layout resembles that of the winner, but with less direct planning. The perfect quadrangular type of plan is shown by Mr. W. Dougill, the future assembly hall being entered directly from the main entrance to the building. An attractive feature of the plan is the babies' court, which separates the nurseries and sick block from the main building. Another scheme on somewhat similar lines is that of Mr. J. Lloyd Owen, whose elevations are pleasantly composed. A development of the court plan is shown in Messrs. Shepherd & Bower's design with five courts, two of which are used as playgrounds. Messrs, Campbell & Honeyburne's carefully designed scheme shows the classrooms placed in a wing by themselves. The problem created by the necessity of building the assembly hall at a later date has been attacked in a number of ways. Mr. Gilbert Fraser has shown a separate building connected to the main block by cloisters. Mr. Frank Rimmington, in his pleasantly presented scheme, adopts a similar arrangement, while Mr. S. E. Mahon places the hall on the first floor over the dining-room. Messrs. Quiggin & Gee suggest that the hall should project in front of the building on the main axis.

The exhibition is of very great interest to Liverpool since the list of competitors includes the names of almost all the best-known local firms, a number of whom rarely publish illustrations of their work. The Liverpool School of Architecture is to be congratulated since all three members of the winning firm and the author of the design placed second were trained there.

The result of the competition justifies the faith of the Orphanage Committee in the ability of the local architects. Liverpool, ever fortunate in her buildings won in competition—including St. George's Hall and the Anglican Cathedral—will gain another fine piece of architecture.

ILLUSTRATIONS

PLATES.

Model of Design for a House.

In Canada, the United States, Norway and Sweden, wood, in place of masonry and brick, is used extensively for many forms of building, especially for dwelling-houses. The general principle of building with wood is that of a frame, of which the interstices are filled in with panels or covered with boards. Foundations and chimneys are in brick or concrete. The model of a house which we illustrate is one designed especially for carrying out in Empire timber for Messrs. W. H. Colt, Ltd., the architects being Lord Gerald Wellesley and Mr. Trenwith Wills, F. & A.R.I.B.A. The weather-boarding employed for these buildings, a feature of which is the "Vancouver" joint, which allows maximum expansion and contraction, is either of Douglas fir or red cedar, and is nominal 1 in. machined from 1-in. boards. Roofs may be covered with ordinary tiles, slates, pantiles, etc., but red cedar shingles, an Empire product, are considered the most suitable roofing.

New Law Courts, Smethwick.

These new Law Courts were opened on October 30 last by the Mayor (Alderman Sam. Smith, J.P.). Formerly the borough had had no separate court of justice, although for nearly half a century the law had been administered in its borders, first by the county magistrates and in more recent years by justices appointed to the Borough Bench and by the Recorder.

The building, which was designed by Mr. Chester Button, A.R.I.B.A., Architect of the Borough Engineer and Surveyor's Department, and erected by direct labour under the direction of the Borough Engineer and Surveyor (Mr. Roland Fletcher, A.M.Inst.C.E.), occupies a position at the junction of Crocketts-lane and Piddock-road. The site was chosen by the Watch Committee owing to its close proximity to the police station buildings, and in planning the building the principal entrance has been placed on the main axis which bisects the angle of the two roads.

The accommodation provided may be studied from the plans reproduced. Among the rooms of particular interest are Courts Nos. 1 and 2, Recorder's room, and waiting hall. Court No. 1, which will be used for Petty and Quarter Sessions, has panelled walls in quartered figured European oak forming a dado. Oak has also been used for the Magistrates' bench, and the fixed seating for jury, court officials, etc. The dock is approached in the conventional way by a flight of steps from the waiting rooms in basement. The ceiling is panelled with moulded fibrous plaster beams, the centre panel having a fixed ornamental laylight of steel with stained glass relief and lighted from a roof skylight. Natural light and ventilation are obtained by clerestory double windows controlled by opening gear from the corridors, and foul air is extracted through fibrous plaster ceiling grids by an electric fan installed in the roof enclosure. The flat surfaces of the ceiling and walls above oak panelling have been covered with acoustical perforated tiles flat painted, which have a pleasing effect.

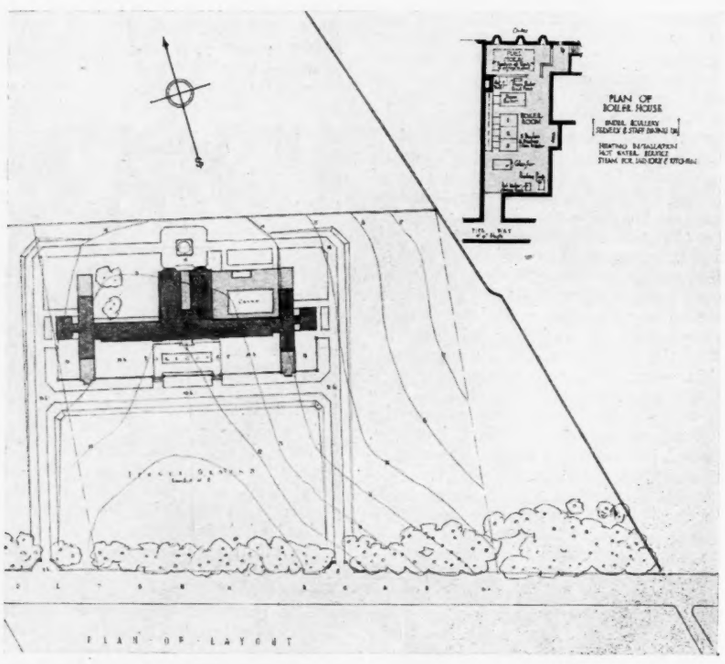
Court No. 2 will be used chiefly as a Coroner's court, and for juvenile offenders; the walls are panelled in oak with plaster beams and cornices; no fixed seating is provided as in Court No. 1, and the furnishing of this room is on informal lines. The Recorder's room is also panelled in oak with a gas fire surround and hearth of $1\frac{1}{2}$ in. red antique hand-made sand-faced brick.

The waiting hall has a dado carried out in natural San Stefano marble in ashlar design with architraves and capping in Napoleon, and skirting in Belgian black marble. The floor is also laid with marble squares and panelled insets unpolished. The ceiling is panelled with plaster beams and cornices.

The remainder of the rooms and offices have distempered plaster walls, the joinery being carried out in Columbian pine. Bronze metal door furniture is used throughout. All woodwork is stained and wax polished. Terrazzo has been used for the dado and floors of corridors and lavatories. The remainder of the floors are of oak blocks, laid herringbone pattern, with square borders.

The building is built of brick; the first floor and roof flats are constructed of hollow tile and reinforced concrete beams, the flat roof being covered with asphalt. The elevations have been carried out in a $2\frac{1}{2}$ in. local multi-colour rustic brick and reconstructed "Weldon" stone. Surmounting the main entrance is the borough coat-of-arms in coloured enamels on bronze, fixed to a stone shield. The windows consist of steel casements in wood frames. The pitched roofs are covered with a red sand-faced Roman tile. Heating is by a gas-heated low-pressure hot-water system. The estimated cost of the building is £15,000, excluding movable furniture.

The following sub-contractors were employed on the work :—H. H. Martyn and Co., Ltd., Cheltenham, oak panelling, seating, doors and furniture to main court, oak panelling to second court, fibrous plaster work, carved coat-of-arms, oak tables, oak hat and coat stands; W. H. Fraley and Sons, Ltd., Birmingham, marble walling and floors; Diespeker and Co., Ltd., Birmingham, terrazzo walling, floors and partitions; Hy. Hope and Sons, Ltd., Smethwick, heating apparatus, metal windows, laylights, bronze door furniture; Rudders and Paynes, Ltd., Chesterstreet, Birmingham, roof tiling, oak fencing; J. R. Pearson (Birmingham), Ltd., Aston, Birmingham, wrought-iron balustrading, bronze grilles, bronze and enamelled coat-of-arms, commemoration tablet; Hill and Smith, Ltd., Brierley Hill, Staffs, wrought-iron railings and entrance gates; Empire Stone Co., Ltd., Birmingham, reconstructed stonework; Wm. Skidmore and Son, Smethwick, plumbing; Walker and Co., Smethwick, electric light installation; Evered and Co., Ltd., Birmingham, electric light fittings; Merchant Trading Co., Ltd., Acousti-Celotex tiles; Jos. F. Ebner, oak block flooring; The Limmer and Trinidad Lake Asphalte Co., Ltd., Birmingham, asphalt roofs; Exors. of Wm. Morris, Oldbury, rustic bricks; The Mid. Plastic and Gran. Co., Ltd., Birmingham, plastering; A. Lyon and Co., Ltd., electric clocks; Wm. Jackson (Langley Green), Ltd., oak panelling, Recorder's room, doors, counter, etc.; Caxton Floors, Ltd., Manchester, fireproof floors and staircases; Adamsez, Ltd., Scotswood-on-Tyne, sanitary fittings; Chamberlain, King and Jones, Ltd., Birmingham, furniture; Jones and Willis, Ltd., Birmingham, oak benches; Welch and Rayner, Ltd., Smethwick, carpets; Kingfisher, Ltd., West Bromwich, oak tables, cupboards, etc.



Liverpool Orphanage Competition: Lay-out Plan, First Premiated Design.

MESSRS. BARNISH, SILCOCK AND THEARLE, F. and AA.R.I.B.A., Architects.

Liverpool Orphanage Competition.

An article on this competition is given on page 11. We illustrate this week the first premiated design, by Messrs. Barnish, Silcock and Thearle, F. & AA.R.I.B.A.

Design for a London Club-house.

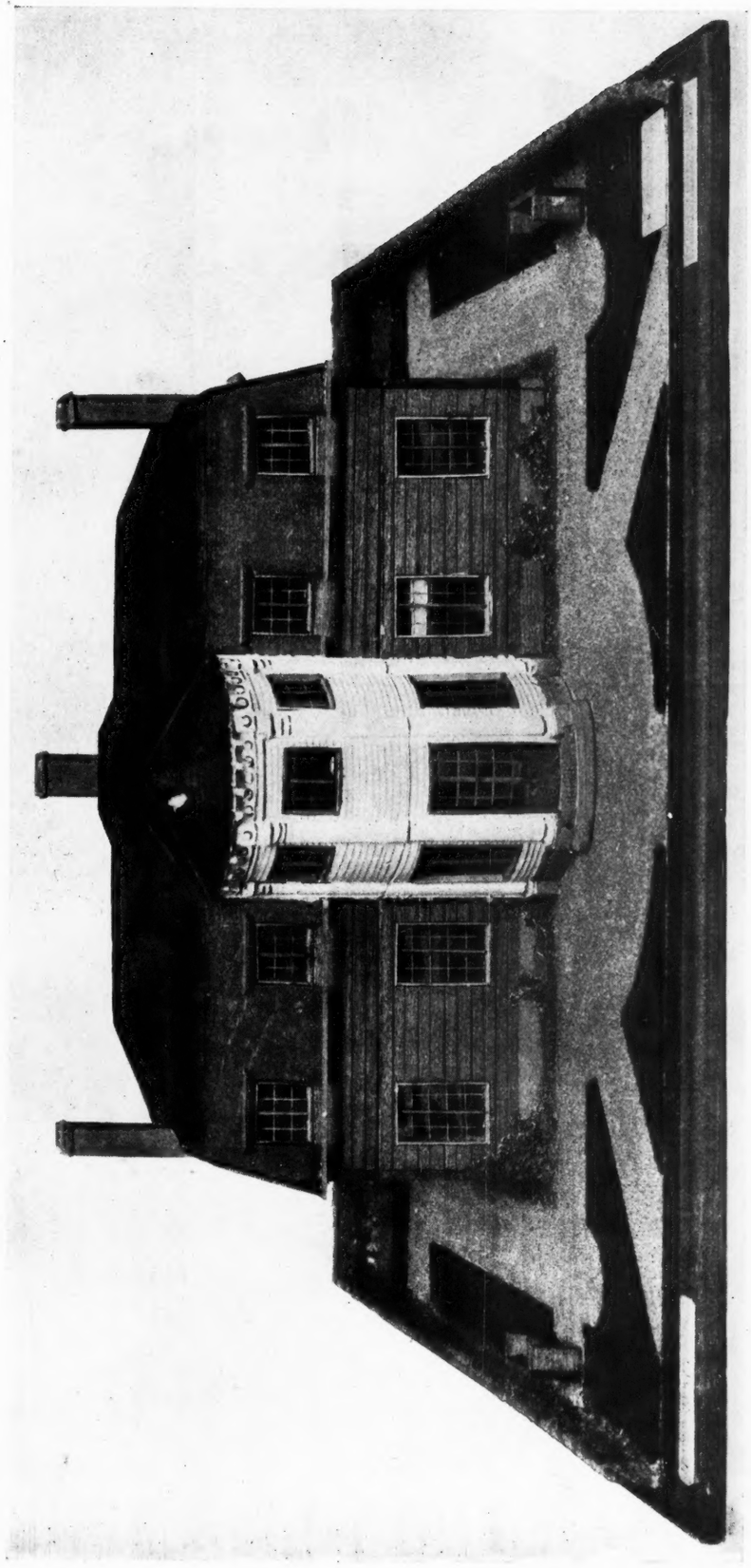
This design, by Mr. W. F. Howard, was awarded the R.A. Gold Medal and Edward Stott Travelling Studentship (£200), 1931.

New Business Premises, Peckham.

This new building has been erected in Rye-lane, Peckham, for Messrs. C. and A. Modes, Ltd. It occupies what may be termed an island site. Its main frontage is in Rye-lane, and there are return frontages to South Grove and Elm Grove, with the shop fronts returned to each. Practically fifty per cent. of the ground floor is given up to arcades and show windows for the display of goods. The entire first and second floors are used as showrooms, and the top floor is utilised as workrooms, staff canteen, etc. The main elevation is a combination of multicoloured brickwork and cast stone, with continuous windows between the cast stone piers. All windows throughout the premises are glazed with flashed opal glass, which has been used on account of its fade-proof qualities, and gives a very pleasing light internally.

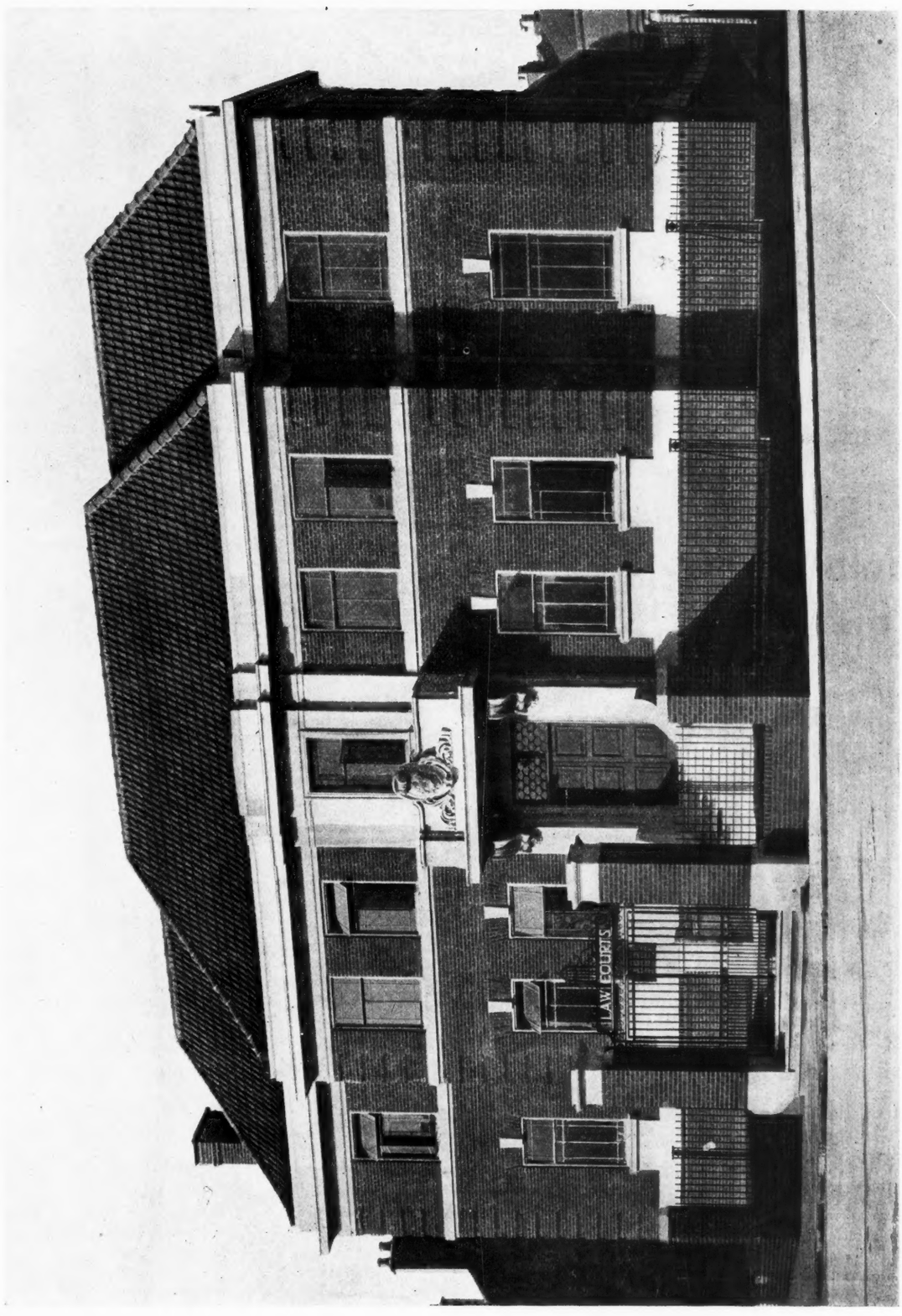
The general contractors were Messrs. T. C. Jones, Ltd., and the following firms were associated with the work : Mortimer Call and Co., Ltd., electrical installation; Fdk. Sage Ltd., shop fronts, etc.; Lawfords, asphalt (arcade); Limmer and Trinidad Asphalt Co., asphalt (roofs); Saunders and Taylor, Ltd., heating and hot water; F. A. Morris, metal screens; Waygood, Otis, Ltd., lift; Leeds Fireclay Co., Ltd., sanitary fittings; Morris Singer Co., Ltd., staircase balustrading, etc.; Girlings Ferro Concrete Co., cast stone; Samuel Elliott and Sons, fittings, etc.; Waring and Gillow, Ltd., carpets, etc.; Phillips Lamps, Ltd., and Korting and Mathieson, electric light fittings; Yannedis, Ltd., door furniture; Gillett and Johnston, electric clocks, etc.

Messrs. North, Robin and Wilsdon are the architects.



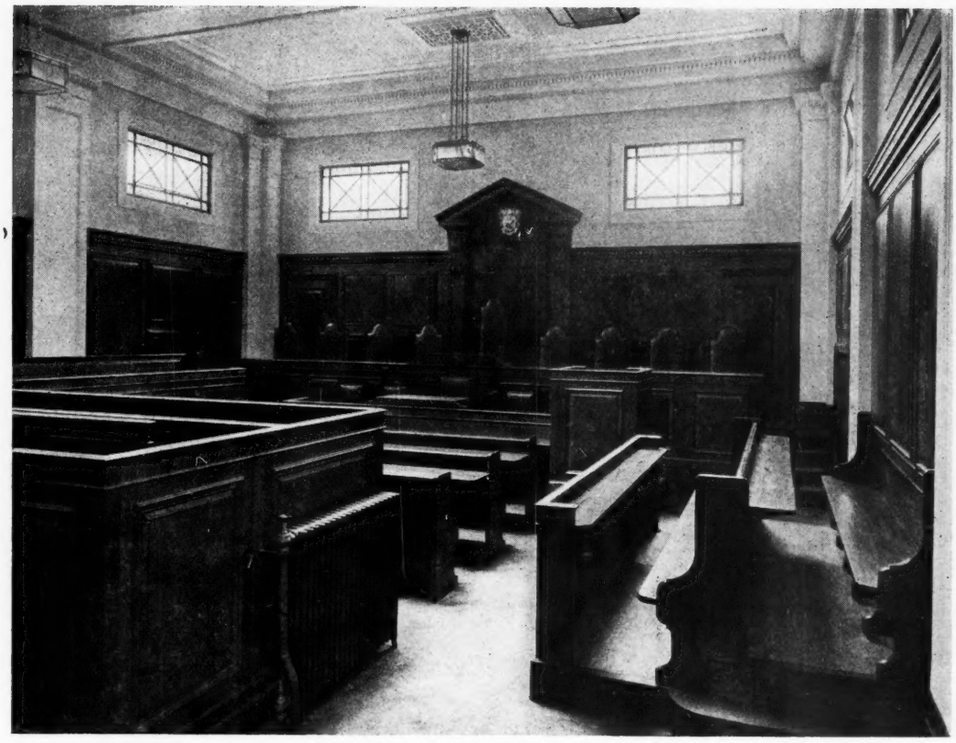
Model of Design for a House.

LORD GERALD WELLESLEY AND MR. TRENWITH WILLS, F. and A.R.I.B.A., Architects.



New Law Courts, Smethwick : Front Elevation.

Mr. Chester Button, A.R.I.B.A., Architect.

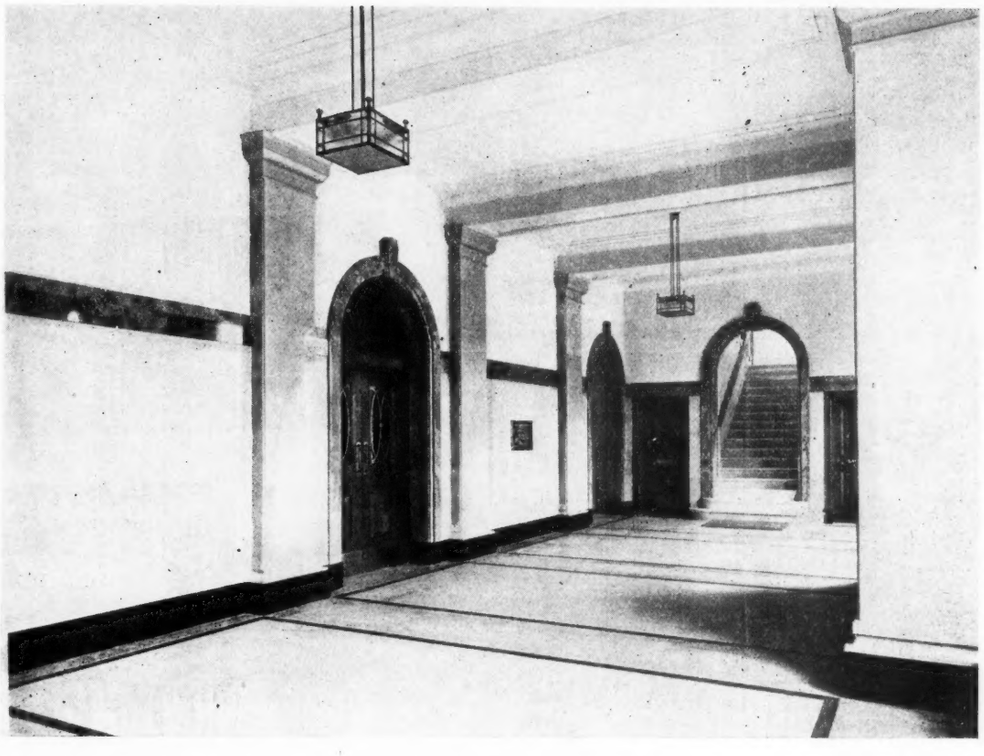


Court No. 1.

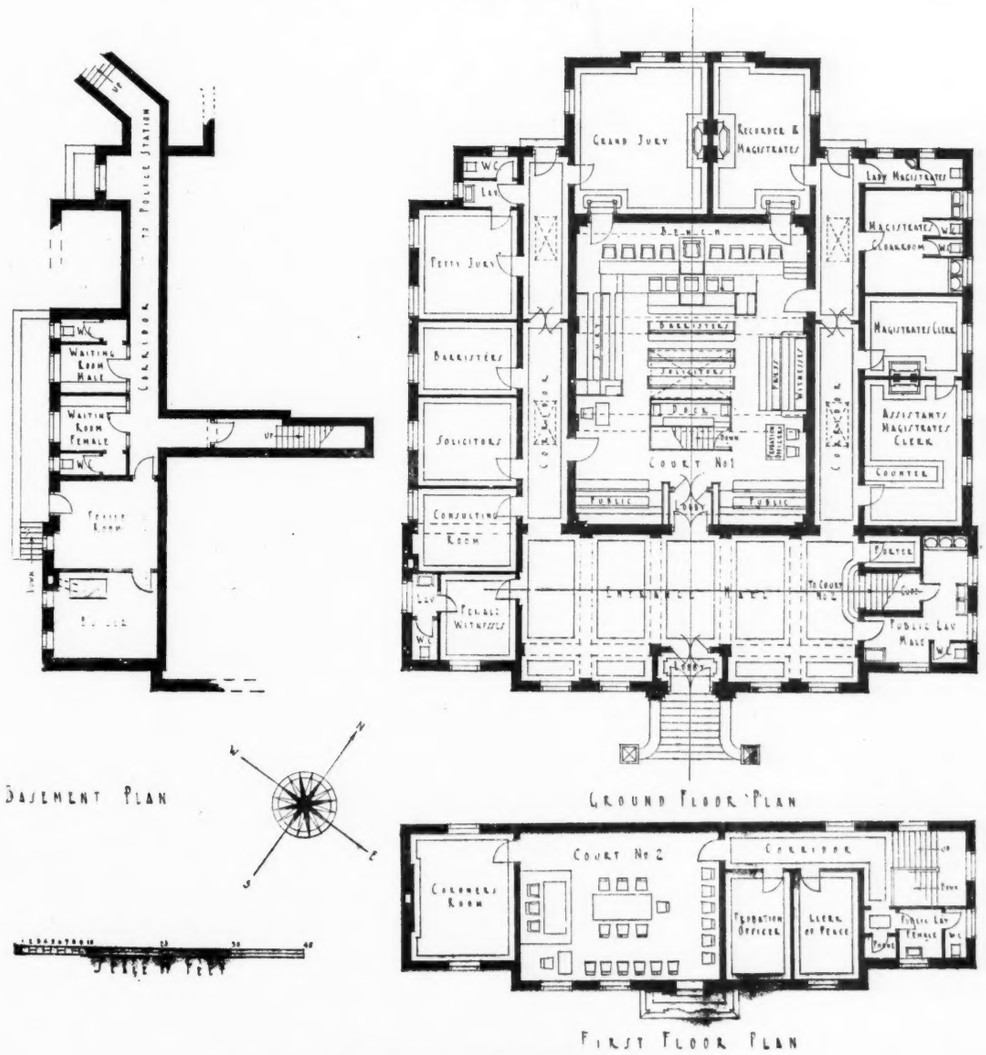
Court No. 1, from Magistrates' Bench.

New Law Courts, Smethwick.

Mr. Chester Button, A.R.I.B.A., Architect.



Waiting Hall.



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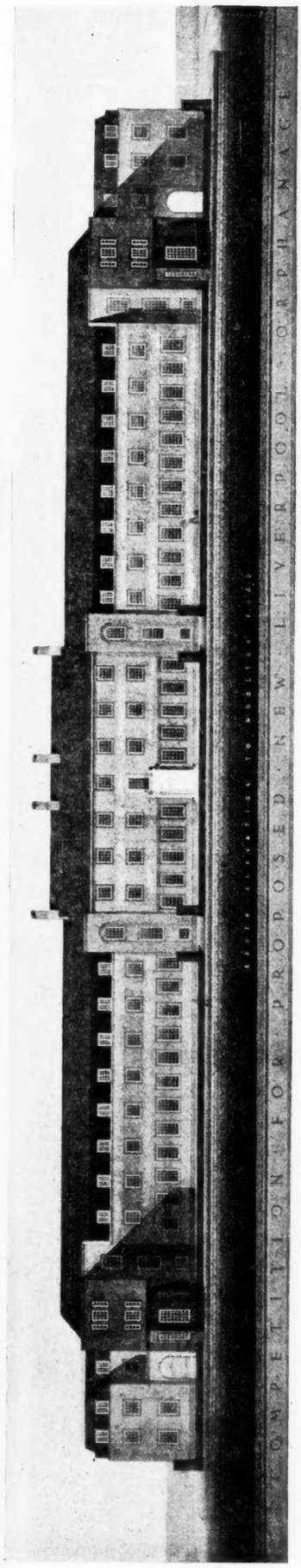
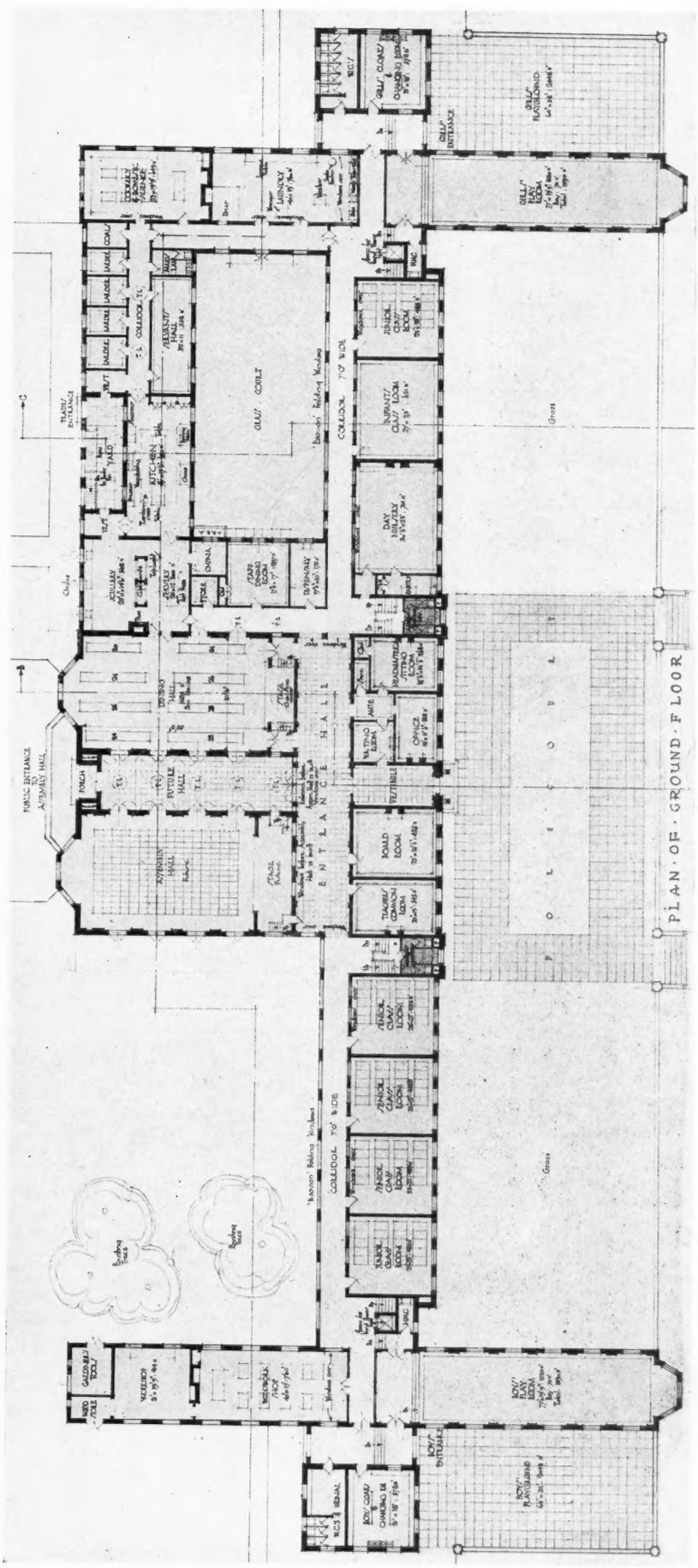
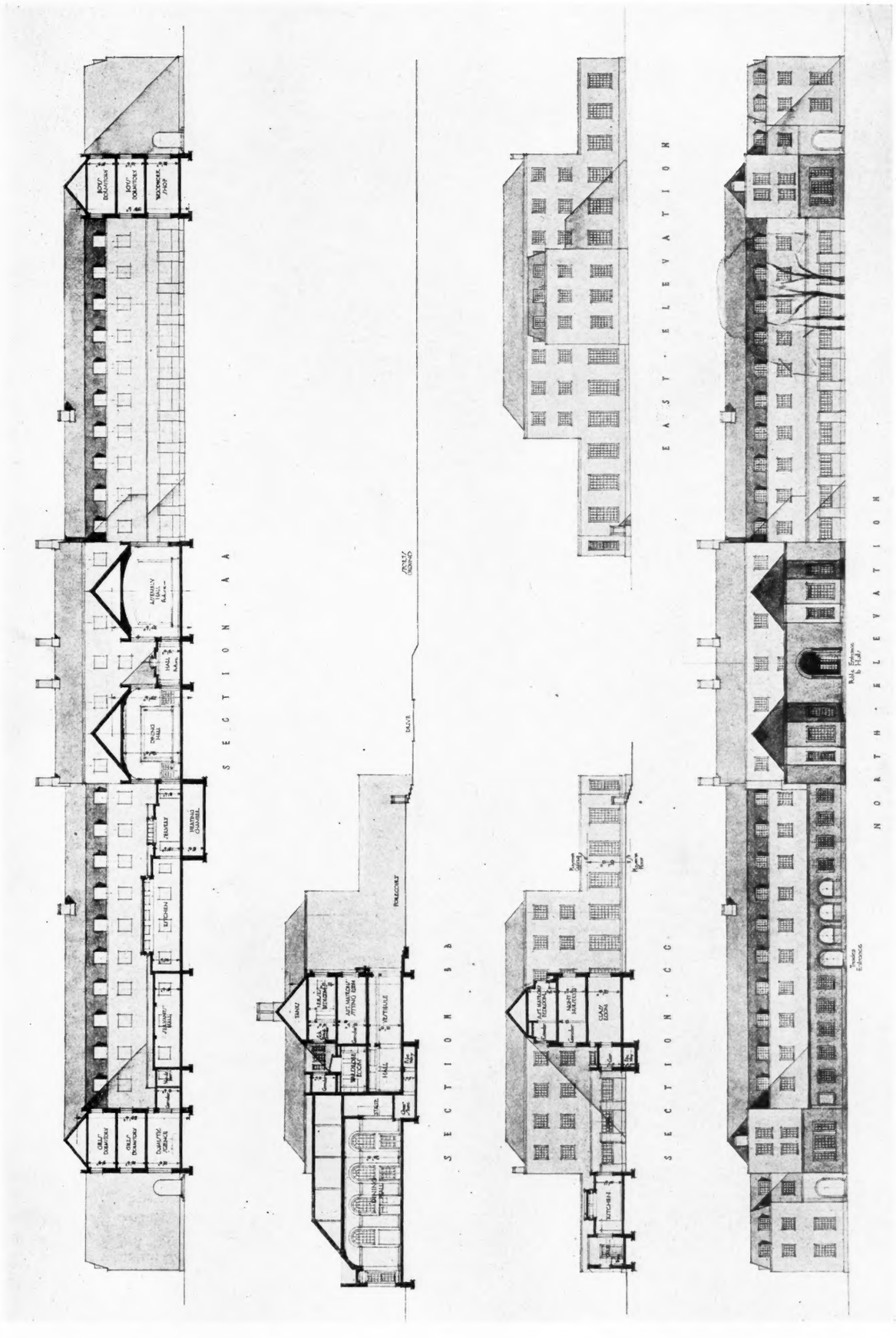




Liverpool Orphanage Competition: First Premiated Design.

MESSRS. BARNISH, SILCOCK AND THEARLE, F. and AA.R.I.B.A., Architects.



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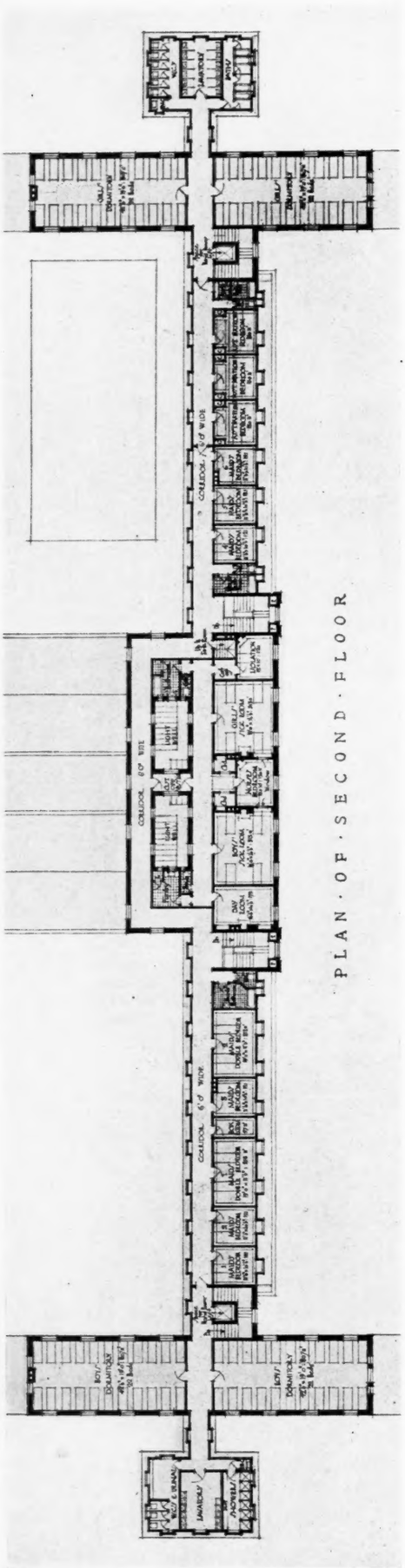

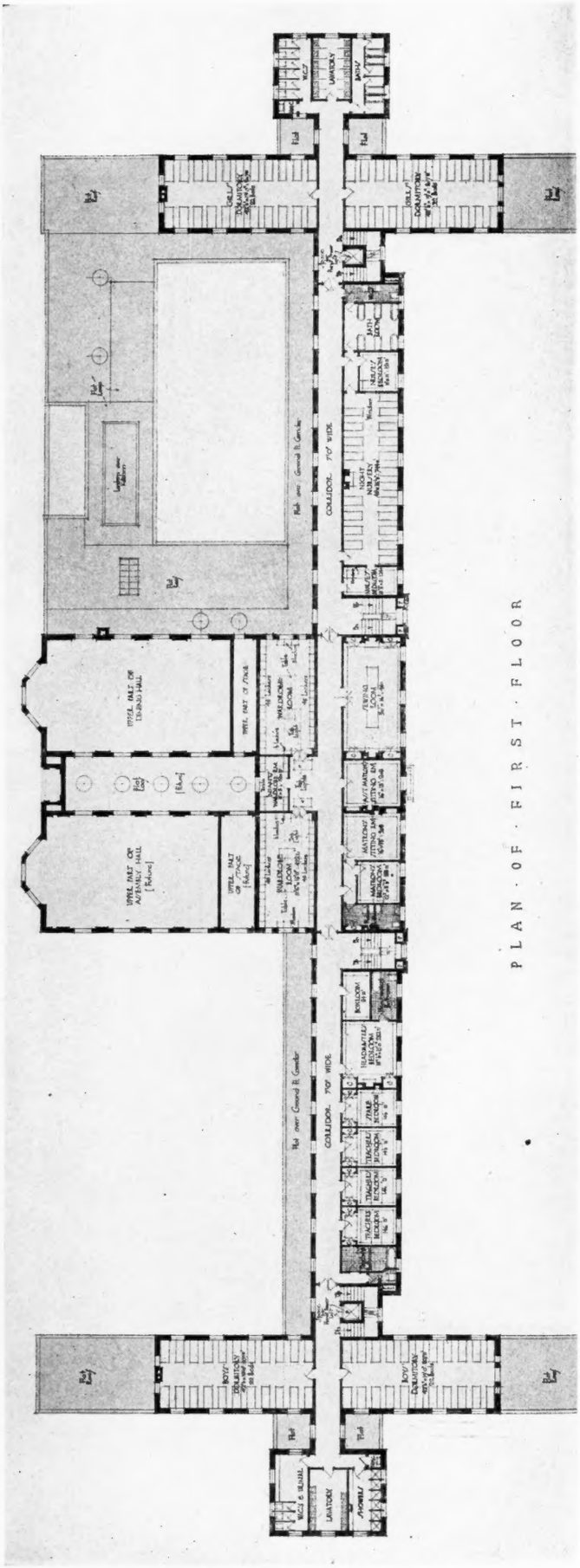

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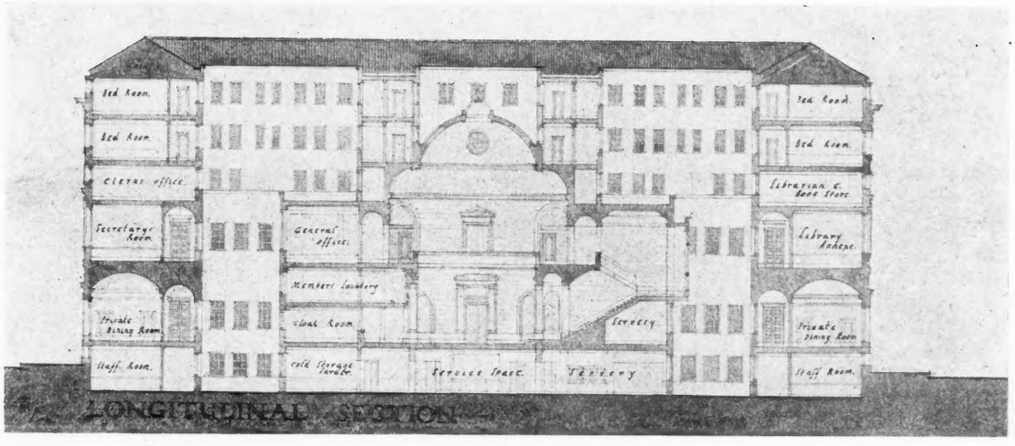
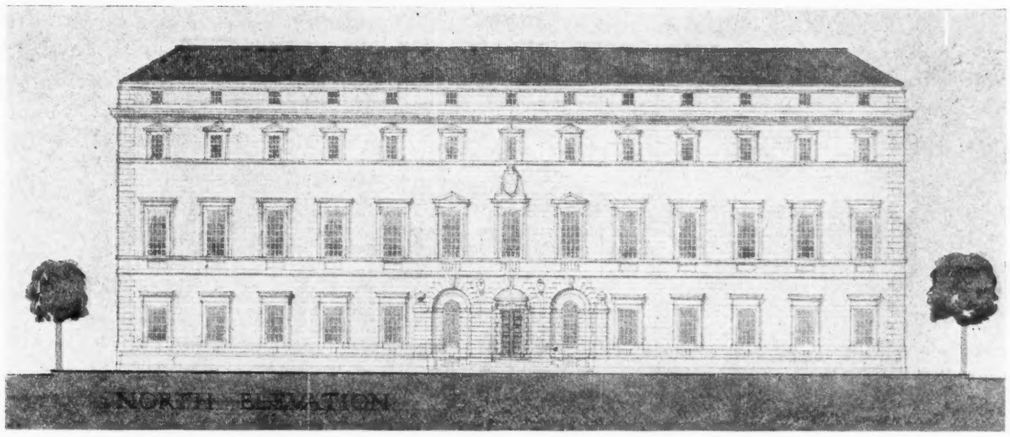
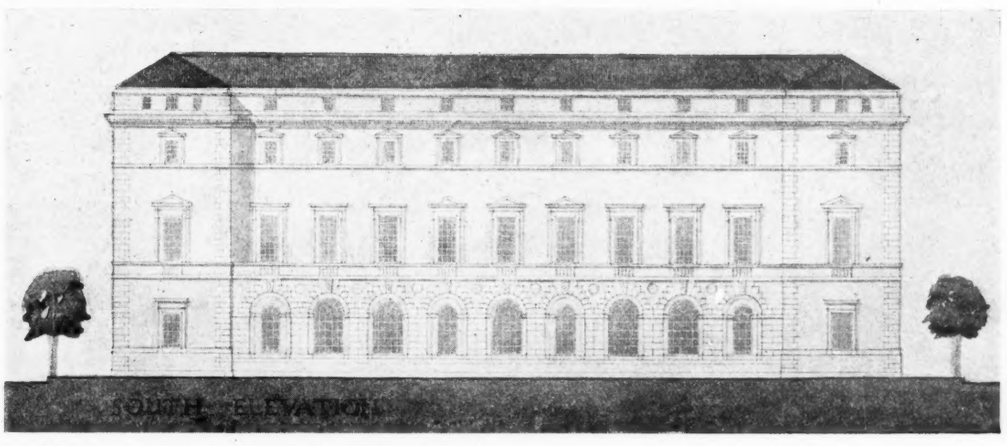




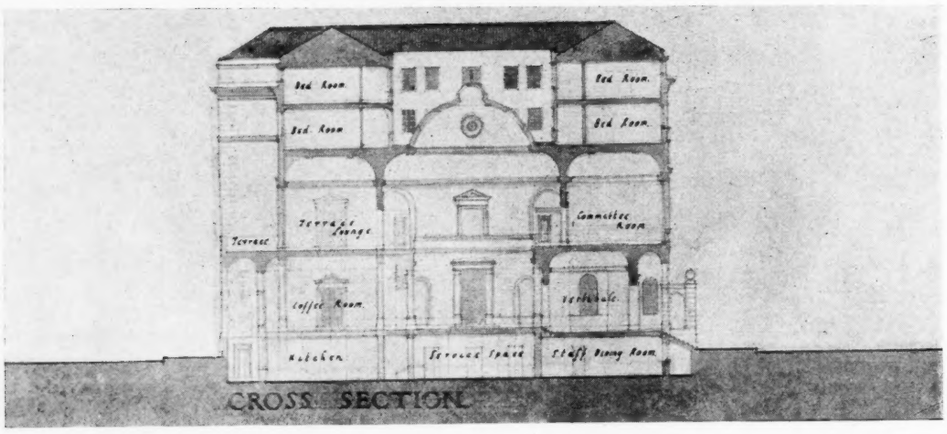


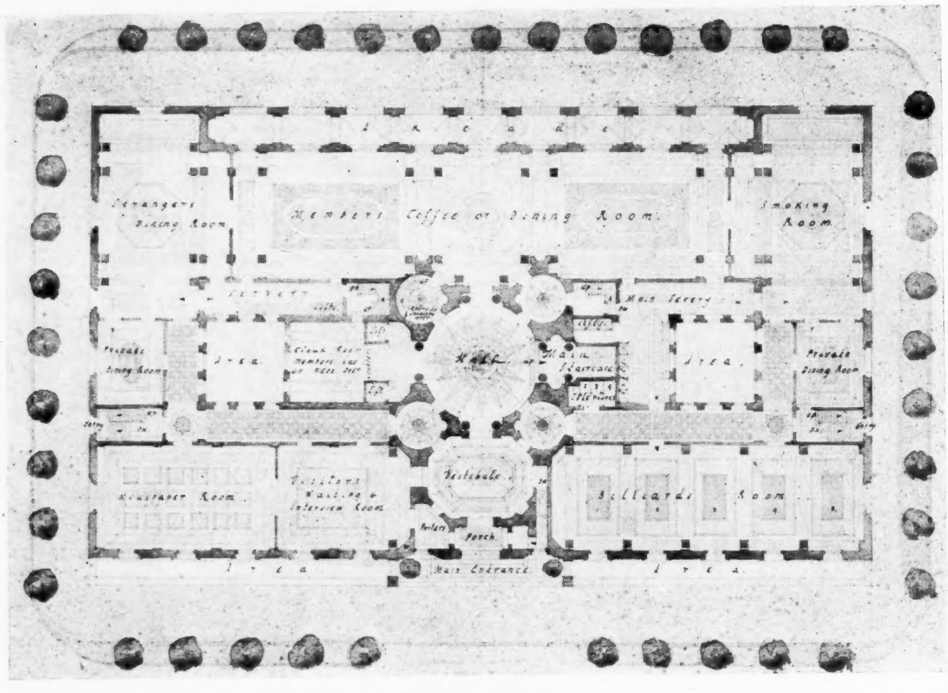
Awarded R.A. Gold Medal and Edward Stott Travelling Studentship.

Design for a London Club-house.

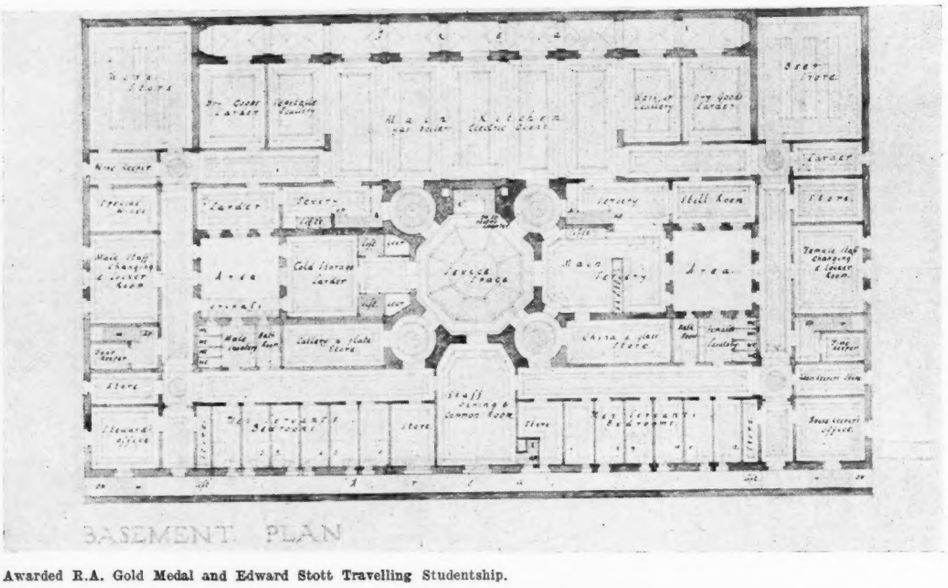
By Mr. W. F. Howard.

Messrs. Bannister, Stocock and Threadle, F. and A.A.R.I.B.A., Architects.





GROUND-FLOOR PLAN.



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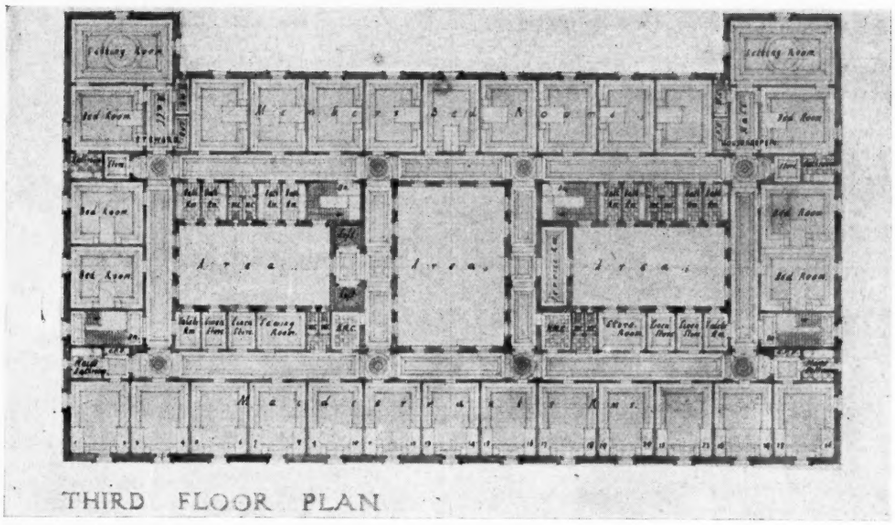

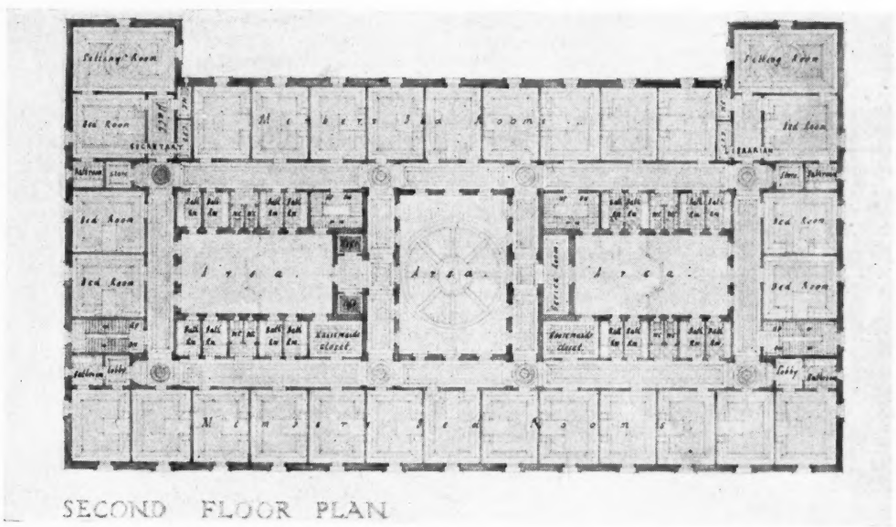

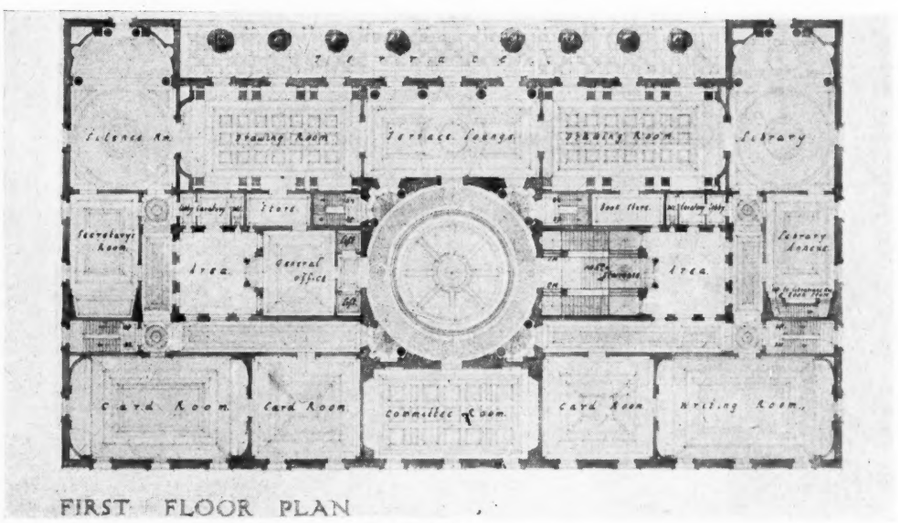

Awarded R.A. Gold Medal and Edward Stott Travelling Studentship.

Design for a London Club-house.

By Mr. W. F. Howard.

"THE PORTENT OF CONCRETE"

THIS was the title of a paper read before the London Society by Sir E. Owen Williams, K.B.E., on December 16, intended, as he said, "to deal only with those aspects of concrete which are peculiarly of interest to London, to see what the properties of this material may mean in the building development of this city."

As might, or might not, be known to members, said the lecturer, all structures were subjected to crushing and tearing tendencies in various parts or members of the structure, and it was the science of engineering to determine where those two tendencies existed, and to what extent. Where there was only a crushing tendency, then concrete unassisted was able to take it. Where there was a tearing tendency, concrete alone might be lacking, and certainly would be uneconomical. The introduction of steel rods into concrete corrected that tearing tendency so that reinforced concrete became a material capable of taking crushing loads by virtue of the concrete and capable of taking tearing loads by virtue of the steel rods, an ideal combination, and allowing a degree of flexibility in design not possible, as far as he knew, with any other material. For example, a homogeneous material such as timber had for definite sizes of timbers definite strengths, and similarly with any other homogeneous material such as steel or stone, that was, the measurements of the external dimensions of members made of those materials could give the expert immediately an idea of their strength. With reinforced concrete, because it was a mixture of two materials, the same rule did not apply. The strength of a reinforced concrete member depended upon the proportions of steel and concrete inside it. Two members in reinforced concrete of identical sizes externally could be very different in strength, because one had been more highly reinforced than the other. The value of this possibility in what might be termed regularising design was considerable.

Reinforced concrete had been used almost exclusively as a substitute for other materials, i.e., the requirements had stretched other materials to their extreme, and as in extremes the older materials became uneconomic, reinforced concrete was found to be an economic substitute. That had been carried to such an extent that he would almost say that there was not yet in being a building which could be termed purely reinforced concrete; that meant, to some extent at any rate, it was only playing the part which could be played by other materials, perhaps not so conveniently or economically, but still within their limits. For that reason it was wise to suspend judgment on what a reinforced concrete building looked like, because he did not think there had yet been one. It was only natural that the material should have been used as a substitute during the period of its apprenticeship, and whilst we were learning all about it, and as such it had given extraordinarily good service. As a substitute it only became to be economical during the limits of other materials, that was, when other materials were almost beginning to impinge upon the realm of concrete. For the types of structure which were well within the reach of timber and bricks, concrete was not an economical substitute. It was not intended to be a cheaper way of doing such things, but rather had been given to us to do different (because bigger) things. To take an example—he remembered reading about cottages which had been designed in concrete, but when it came to building them it was then found that bricks were cheaper, so they were built in bricks and whitewashed. Presumably the brick builders did this with great elation, regarding this as a defeat of concrete, when it was really a defeat of the designer. Thickness for thickness and size for size, concrete was never cheaper than brickwork, but thickness for thickness and size for size it would do infinitely more work. If a wall in brickwork 9 in. thick would do the work required of it, a concrete wall 9 in. thick would only be dearer. But, on the other hand, a concrete wall 9 in. thick might well replace a brick wall almost as many feet thick and with vast economy. By way of illustration it was interesting, touching on the question of floors, that for those spans which could be built in timber (having regard to economical sizes and leaving out the question of fire resistance), timber was the more economical material. When timber became a practical and physical impossibility because of spans and loads, concrete began to come into the picture as able to do the job economically, and carried on to an extension of spans and loads entirely inconceivable with timber. In effect, concrete began where timber ended, and the same might be said of the material in relation to all other building materials. Economically, it had a property peculiar to itself, namely, that its cost per cubic foot became less with increase in dimensions; that was, the bigger a member the less its cost per cubic foot. That property of concrete pointed to its being the material for the bigger things of the world rather than the smaller things, for gigantic factories and such like rather than individual cottages. And it was for those things that it came into the world.

He had touched, said the lecturer, on the high compressive or crushing value of concrete, but he would like to relate them in definite proportions to other materials. In the first place, many would be interested in the controversy as to whether structural steelwork or reinforced concrete was the material for the present or the future. It was a matter of economics. Reinforced concrete did not ignore steel—it claimed to take one property of steel and one property of concrete and combine them. It could strictly claim to be neither a steel building nor a concrete building, but claimed to be the economical combination of both. Incidentally, it was an interesting mathematical fact that, in the logical constructions of concrete (by which he meant not where it has been used solely as a substitute), the cost of a reinforced concrete building was the least when the cost of the steel was precisely equal to the cost of the concrete. In structural steelwork they also used steel in tension; therefore the bone of contention was as to whether steel in compression was more economical than concrete in compression. He himself thought that the onus of proof was strictly on the structural steel advocate because reinforced concrete had as much steel as concrete, and therefore was based on an appreciation of both. Definite calculations showed that, to carry equal compressive loads, the cost in structural steel was three times as great as in reinforced concrete—that was, if one had 1,000 tons load on a column, the structural steel column would cost £3 to every £1 expended on a reinforced concrete column, and that not allowing for the fact that the structural steel column would be increased in cost by fireproofing, for which they were driven to adopt concrete. Steel in compression could therefore be said to be three times as expensive as concrete in compression. Further, in tension, a structural steel member was, by virtue of the labour required for fabrication, very much more expensive than the same area of steel bars in a reinforced concrete member. It would be argued that the sizes of the concrete columns were greater. That was not necessarily so in view of the greatly improved reliable compressive properties of concrete. At the moment a concrete column need not be any bigger than the usual type of structural steel column, and as research was going on in concrete, there were grounds for believing that the relative proportions between the costs of concrete and steel would be even further increased. It would therefore be seen that he dismissed steel as being a lasting competitor of concrete as a compressive medium. Steel was in its right place as a tensile medium, and concrete was in its right place as a compressive medium, and the combination would in the end wear down all competition.

Comparing reinforced concrete with brickwork, the cost of a brick pier to do the same duty as a reinforced concrete column was something like ten times as much, and the comparison of size indicated that the weight of a brick pier soon became a predominating proportion of the load it had to carry, and he had made some calculations to illustrate this fact. He had been interested to find out at what height in erecting, say, an office building, with floors at every 10 ft. of height, the whole of the ground floor would be occupied solidly by the columns, whether in brickwork or concrete; that was when one would reach the absolute maximum possible height of building. It was, of course, a limit, and as limits were might seem absurd, but it illustrated the point. A brick building about 250 ft. high would have the whole of the ground floor solid with brickwork, that was, no room left in it. A reinforced concrete building could go to 4,500 ft. before the ground floor was solid with concrete. At those heights the ground pressures, at any rate in London, would be utterly impossible, and the building in both cases would probably sink into the ground and disappear. It was more practical to determine limiting heights in both materials on the assumption that the foundation material of London, namely, London blue clay, was not overloaded. Taking the same office building, with floors at every 10 ft. or so, the limiting height of a brick building which could be built on London blue clay would be about 150 ft. to 175 ft., that was, not allowing for any considerable amount of architecture. That he could not allow for, as it depended upon the amount which might, at even comparatively short heights, sink anything. A reinforced concrete building limited by the same condition of ground pressure could go to 500 ft. In both cases the foundation problem would be identical, although one building would be more than three times as high as the other. But that comparison, great as it was, was still not quite fair to reinforced concrete. In the brick building the ground floor would be occupied as to one-quarter of its area with brickwork, whereas in the reinforced concrete building only about one-sixtieth of the area would be used. Thus the comparison of useful floor area would mean something like a ratio of 5 to 1. In the question of solids in exterior walls preventing daylight entering the building, the brick building would, of course, be seriously handicapped, owing to the size of its supporting piers. Those facts of height indicated that round about the present limiting heights of buildings in London, and having regard to the amount of solid walling used on them, the legal limit of about 100 ft. was about the limit of brickwork, and economically was even nearer the older and lower buildings. Here again we saw where concrete began when the other material ended. It was seen that with it five times the floor area at least could be obtained without any increased cost in foundations and without any increased cost in ground.

The development of what might be termed the high building, that was, buildings over 100 ft., would involve a complete change in site development. A site would not be developed as it was at the moment almost entirely for one purpose, with either upper or lower floors unsuitable for the purpose. The problem would resolve itself into building generic types of structures in which the lowest or ground floor might be completely open for traffic and the next floor or two devoted to shops, the next few floors to offices and the upper floors to residences. He imagined that such a building would have its principal axis north and south, the upper or residential part not wider than, say, 50 ft., being, in fact, a great wall-like structure on which the sun could play on both sides, standing on the lower part of the

structure, which could be wider as the ground level was approached. The distance between frontages of the upper buildings would be about 300 ft., giving ample light and air, whereas the lower buildings could approach within 100 ft. of each other. The present method of building special buildings for one purpose on a site was a poor solution which involved a colossal destruction and rebuilding every time the purpose changed. That was comparable to altering the gauge of a railway every time different traffic was to be carried. It should not be impossible within the limits of present knowledge to design a structure having a permanence based on the unalterable unit of a human being. The absence of walls possible with the type of construction pictured would allow complete flexibility of replanning. The windows of any one floor need not necessarily have any relation to the windows of another floor, but could be arranged to suit the specific requirements of the use of any particular floor. In brief, it would be a reproduction of sites at uniform levels to a height of some 500 ft. Only in some such way could the economy of modern knowledge of materials not be offset as at present by the impermanence of design.

He could not but feel that when a material came to us with significant properties, such as an astonishingly high and economical compressive strength, the like of which has not previously been known in the history of mankind, it must have a definite meaning. To him, the lecturer, it meant that we got the freedom of the upper air without loss of economy in cost and perhaps the contrary. Was it more reasonable to spread out on a layer involving diving underground for access and transport, or would it not be better to travel vertically? He would rather follow the dictates of logic than what he imagined to be his own desires. Logic gave us the key to the future of which we knew nothing, whereas with our desires we would attempt to colour the future with our past. Nature was the great dictator, and he could see no option but to follow its instructions, confident that the joy of living in store for those that did might be far different possibly from anything that we had experienced but no less fine.

TOWN PLANNING INSTITUTE

Dr. R. C. Maxwell (President) took the chair at a meeting of the Institute held on Friday, December 11, at Caxton House, Westminster, when Mr. F. Marsden (City Engineer, Bradford) read a paper on "Some Economies and Advantages that have Resulted from Town Planning."

The President referred to the fact that the Town and Country Planning Bill had been introduced in the House of Commons the previous night, and proposed that the meeting send a message of thanks and congratulation to Sir Hilton Young.

This was agreed to.

Mr. Marsden, in the course of his address, said the particulars were submitted in order to justify to some extent the contention that town planning was a business proposition and not merely an expert's fad. Without being unmindful of the difficulties of definitely proving this contention there were certain factors which had been gained, and were now of practically universal application where town planning had been adopted over a number of years, that clearly showed the truth of the contention. For convenience two main definitions were made, viz., (1) Some economies, (2) some advantages. He suggested the following headings as being avenues of thought upon which definite economies of one kind or another had resulted from town planning:—(*a*) Lines of new streets and widenings of old streets; (*b*) lay-out of building estates and the inter-relation of adjoining estates; (*c*) regional planning; (*d*) increased facilities and intensity of transport; (*e*) death and health rates; (*f*) zoning and land values; (*g*) built-up areas; (*h*) open spaces and playing fields. In connection with lines of new streets and widenings of old streets, the following examples would illustrate to some extent that very considerable savings would have been effected because it would have been unnecessary for the purpose of constructing or widening a street, especially the carriageway, to spend money on the acquisition of any buildings or property along the site of such street. In a certain town 174,600 sq. yds. of land had been dedicated free for the widening of existing roads. In the old days the local authority would have had to pay about £34,920 for this land. It must also be remembered in this connection that it cost very little more to leave space for a road 80 ft. between the fences than it did to limit it, say, to 50 or 60 ft., as the extra width was put into grass verges for the time being, and it was hoped that some part of the grass verges would be left for all time. A road 60 per cent. wider cost only 10 per cent. more, the widths of the footways and carriageways being the same in each case. The cost to Bradford of widening roads had been £133,049 per mile and of making new roads £64,590. In Leeds the figures were £200,000 and £60,000, and in Liverpool £52,380 and £15,145.

A further economy effected by these newer streets was that the various mains and services were put under the footways instead of the carriageways.

Town planning produced layout of building estates in such a form as, compared with the old regime of building by-laws and regulations, to save owners of property considerable sums of money in the layout of streets, chiefly because the streets were laid out to such dimensions as would serve the traffic that they were likely to bear. Money was only expended upon absolute necessary main roads so as to provide the requisite through facilities for traffic instead of making every front street into a traffic street. This enabled owners of property to dedicate readily lands for widening existing highways or making new town-planning roads which formed sections of an arterial road. It was not a question of filching land from an owner, because the arrangement brought about results to the benefit of the owner, the local authority and the residents on the estate. In addition, this economy perhaps was shown most of all in the making up of the estate roads under Acts governing private street improvement works, and this amount fell upon the owner-occupier to a very large extent. A table prepared of the cost of developing an estate on the old lines as compared with development on town-planning lines showed that, assuming houses to be built at the density, 12 per acre, now adopted for town-planned estates with streets laid out under the old requirements of building regulations, the streets would finally cost £62 per house more than laying out the streets on town-planning lines. Such economy resulted directly from town planning. Even with a doubled density for the old layout the economy was still £14 10s. per house.

Regional planning was certainly one of the most important sections of town planning; notwithstanding the fact that it did not cover all details, it still did define what should be the governing factors of the planning of an area such as would, for all practical purposes, meet the requirements of individual areas, large and small, urban and rural, together with the maintenance of broad features of outlook, amenity and communal interest. If the powers now sought were granted, it should make it possible for large areas to work together for the common good, so that all financial burdens should be placed upon a sufficient number of shoulders as to make it no burden for any, but a privilege for all. It would enable such matters as water, light, sewage disposal, sewerage, retention of large open spaces, woodlands, and other beauty spots in one portion of the area for the use of all the rest, to be dealt with so that the leading features of communal life could be zoned to their proper and local destinations on the most economical and best service lines.

In regard to increased facilities and intensity of transport, here, again, town planning should be accorded its full due, as without it the provision of the best lines of arterial roads, by-pass, ring, or orbital roads (in certain districts) could not be provided. The consequence of such non-provision would, as was now the case in many built-up areas, be congestion of traffic, loss of life, inconvenience in shopping, less than the full use of mechanically propelled vehicles, to say nothing of the slowing down of the general movements of both pedestrians and vehicles. The old theory that a good shopping street must necessarily be a narrow congested street was very quickly going by the board. Shopkeepers were preferring streets where there was ample pavement width in front of the shops, and preferably streets where there was enough room to allow the standing of cars outside the shops, or suitable accommodation between the back of the pavement and the building line. He had prepared a table showing the loss sustained by congestion. The figures showed that, if a light lorry was made to follow a horse and cart in a congested street or streets for an hour, it was losing money at the rate of 12.8d. per ton mile, £1 6s. 8d. per day, or £381 6s. 8d. per year. In the case of a heavy lorry the loss was at the rate of 6.85d. per ton mile, £2 5s. per day, £643 10s. per year. Another way of expressing it was that by all congestions which enforced the motor vehicle to travel less than a reasonable speed of 15 to 20 miles per hour, or, say, an average of 2½ miles per hour, for such lengths of time, the motor vehicle was reduced to about one-sixth of its capability. Another great economy by having town-planned arterial and other roads was in the fact that a fewer number of vehicles and personnel was required to do the same number of journeys, as a larger number were required on the "slow-down" principle because of congestion.

There seemed to be a consensus of opinion that it was more healthy to live in town-planned areas than in areas of the old type of densities of population. It was found, even in industrial cities, that the more congested wards were heavier in death-rate than the more pleasantly situated, which had more open space and availability of sunshine. In Bradford the West Ward was perhaps the most congested ward so far as resident population was concerned, and the death-rate was 16.16 per thousand. The Heaton and Allerton Wards were developed at a much less density, and included estates developed upon town planning lines. The death-rate of the Heaton Ward was 12.14 per thousand, and for the Allerton Ward 12.43 per thousand. Figures furnished him by Mr. Hill, the surveyor to the Letchworth Urban District Council, enabled him to show more emphatically the advantages of town planning in this regard. In the county of Hertfordshire the birth-rate was 15.3 and the death-rate 10.2, whilst in the urban district of Letchworth the birth-rate was 14.3 and the death-rate 6.7. This meant reduced sickness and increased employability of the workers in Letchworth, to say nothing of the increased happiness and general welfare of the people. These figures were submitted as perhaps one of the best tests of town planning from this point of view, because they showed clearly that towns could be planned in such a way that they reaped even greater advantages than an agricultural county. This should cause many people to think seriously about establishing satellite towns instead of for ever increasing the area of population of existing towns. Surely there would be no lack of agreement, having regard to the particulars he had given, that this economy must rank amongst the highest and best which could be produced.

The zoning ordinances of town planning schemes undoubtedly tended to a more eco-

nomical development, facilitation of transport, and less costly public services, because with zoning they got into more or less circumscribed areas, concentrated application of the building of certain types and classes of property based upon the principle of their requirements or the requirements of their potential occupations which enabled the natural general requirements of communal life, such as water, railways, contour, and aspect of lands, to be used to the best advantage. Zoning also increased and tended to stabilise the values of lands, with the result that purchasers had a greater degree of security, knowing that their neighbours would not be allowed to jeopardise their investment in property by the introduction of regulated trades or uses foreign to those originally zoned. These remarks applied equally as strongly in regard to regional zoning. What was more, it seemed to him that all principles initiated for undeveloped land were capable of being applied in appropriate form to built-up areas.

It would be wrong not to mention the important phase of town-planning relating to open spaces and playing fields. Here, again, it was shown that in the laying out of estates owners were beginning to recognise the flexibility and business attributes of town planning so as to enable large areas to be willingly set aside for open spaces, and it was to the credit of many owners of property, both of large and smaller estates, that they were beginning to realise what an advantage there was to be gained from a properly planned area. In Bradford 64.17 acres had been dedicated for open spaces by owners developing estates in the town-planned areas.

Whilst the economies of town planning might also be looked upon as advantages, there were also other benefits which were not in themselves economies, although they gave great advantages. Amongst these were the provision of gardens, avenues of trees, and the increased amount of sunlight which was available because of the open type of development. This meant that millions of men, women and children had learned to love their gardens and gardening, and had been imbued with the spirit of the cultivation of the beautiful. The moral, mental and spiritual uplift gained had made men and women of greater measure than before, the country thereby getting a sound natural investment. Town planning would contribute, therefore, in no small degree to the building up of an A1 nation, not only in regard to the physical standard, but the full measure of a human being.

The speaker concluded by quoting a number of examples of economy in town planning in the United States, and also called attention to a number of replies which he had received from municipal engineers giving details of economies and advantages which had resulted in their own districts. The towns included were Birmingham, Bristol, Glasgow, Hull, Leeds, Leicester, Letchworth, Liverpool, Ruislip-Northwood, and Welwyn Garden City.

Mr. H. H. Humphries (city engineer, Birmingham) said there was no doubt that anyone who had been engaged in town planning must agree that there were tremendous economies and advantages associated with it. As to the loss caused by traffic congestion, he made a calculation some time since and came to the conclusion that if the city could adopt a scheme whereby the loss could be saved, and if the traders handed over the money they would save, they would not need rates in the future. He had experienced cases where the value of property had increased owing to an area being town planned, and he had also been engaged in a scheme whereby thirty sewage farms might have been wiped out but for the opposition of some authorities who had spent a good deal of money on their farms. He thought, however, the time would come when these farms would have to go. In the ancient town of Shrewsbury the traders were setting back the ground floor of their premises, leaving the first story as it was, and this he thought an excellent way of getting less congested streets.

Mr. Alwyn Lloyd said that Dr. Unwin had always claimed that as they spread their houses out the cost of land went down, and it was shown that the cost of land was less than when thirty or forty houses were crowded on an acre. In spite of all they had to say about ribbon development and much of the unsatisfactory development which had taken place since the War, they could claim one very positive achievement, and that was the enormously increased area of gardens in suburban areas. It was one thing they were all pleased about. Under town planning they had not only created a much bigger area of gardens, but had increased the number of amateur gardeners, which had been to their benefit and to the benefit of the whole of the community.

Mr. G. L. Pepler said that Americans were much impressed with the saving in the cost of public services by methods of zoning. When they came to lay down mains for whatever purpose, if they knew the type of building which was going to be erected and the density, and so forth, it was obvious that the work could be carried out on more economic lines than if they had no idea of what the area would be used for. By careful laying out of their street junctions and connections on scientific lines it was, in many cases, possible to avoid having a policeman on point duty, and this meant the saving of a great deal of money.

Mr. W. H. Thompson said it would be an advantageous thing if the paper could be brought before municipal councils. He suggested that plans explanatory of town planing might be prepared in a manner so that they could be understood by the general public.

Mr. J. Wilding said he came from a county where the people did not understand town planning, and if such facts as those given that night could be broadcast it would make the lot of the town planner much easier.

Colonel Cart de Lafontaine thought Mr. Marsden had put before them things which were quite necessary to be known generally, but if town-planning schemes were broadcast too early it might make the path of the town planner more difficult than at present.

Mr. J. E. Acfield (city engineer, Leeds) said the economies which would result from town planning in the future would be most advantageous, but could not at present be assessed. In some of the early schemes connected with housing the roads were made too narrow, and this would not result in permanent economy. There was no difficulty in securing the set-back of shops in streets, and he believed shopkeepers felt that it was to their advantage.

The motion was carried, and Mr. Marsden briefly replied.

SOCIETIES AND INSTITUTIONS

R.I.B.A.

Final Examination, Testimonies of Study: Acoustic Subjects.

The attention of students is drawn to the recent decision that the subjects to be treated acoustically may be submitted on any of the dates given in the R.I.B.A. list of problems in design.

Intermediate Examination, November, 1931.

The R.I.B.A. intermediate examination qualifying for election as Student R.I.B.A. was held in London, Manchester, Newcastle-upon-Tyne, Plymouth and Edinburgh from November 20 to 26. Of the 194 candidates examined, 80 passed and 114 were relegated. The successful candidates are as follows:—

G. W. Armstrong.
J. C. Ball.
L. H. Bond.
R. E. Bonsall.
Joan M. Broadbent.
W. E. F. Carmichael-Anstruther.
J. C. Chambers.
K. H. Choate.
A. L. Clarke.
J. C. Clavering.
E. W. Collins.
A. E. Cooper.
A. C. Couch.
F. M. Dewing.
K. P. Dexter.
N. Dickinson.
C. J. Dixon.
J. G. Dunton.
L. Duxbury.
R. E. Eyles.
J. Fielding.
E. H. Firmin.
F. J. Fletcher.
J. Gedge.
A. E. Gerrard.
Margaret C. Gick.
W. Goodey.
F. W. Gregory.
L. J. Grigg.
T. J. W. Haiselden.
A. J. Harding.
W. S. Harper.
R. A. Harrison.
W. T. Harrison.
C. A. Hart.
B. Haward.
H. H. J. Hobday.
J. S. Hogg.
E. Hough.
F. H. Hoyles.
H. Jackson.
R. Jackson.
H. R. Lanchester.
D. E. Lloyd.
H. Mackley.
S. R. G. Mence.
N. W. C. Mould.
L. Murphy.
P. G. Negus.
G. H. Oliver.
H. J. Orchard.
A. B. Overend.
C. H. Pike.
F. T. Pritchard.
R. J. S. Roberts.
V. H. N. Roles.
O'B. J. L. Rowe.
A. Ruddiman.
E. H. Sadler.
G. E. Salt.
J. E. Saville.
E. A. Smalley.
E. G. Stallard.
K. A. Stevens.
R. R. Stowell.
J. A. Suggitt.
C. G. Tagholm.
J. Thompson.
W. W. J. Trollope.
G. Watt.
H. C. Weegmann.
N. E. G. Weston.
G. L. Williams.
J. W. Williams.
A. H. Wise.
E. J. Wood.
J. S. Woodhouse.
R. T. Wormell.
T. B. Wrathmell.
F. Wright.

EDINBURGH ARCHITECTURAL ASSOCIATION.

At the monthly meeting of the Association, held at 15, Rutland-square, Mr. J. Stuart Syme, F.R.I.B.A., of York, speaking on "Egypt and the Beginnings of Architecture," said that no other country offered so rich a field for inquiry into the beginnings of architecture. Egypt first emerged as a nation under a firmly established, centralised government about 6,000 years ago, and from that time she never ceased to exist as a national entity, with its individuality unimpaired, until the death of Cleopatra about 30 B.C., when the country became merely a Roman province. The second Theban Empire was the most brilliant period in the nation's history. The most noteworthy tombs of that date were those cut in the rocks of the Valley of the Kings at Thebes, some of which gave evidence of remarkable skill in the art of architectural planning. The Temple of Amen-Ra at Karnak was the most magnificent building of ancient Egypt. Built at various periods, its plan showed defects which denied it the right to rank as the noblest work of the architects of the Nile Valley. The Temple of Queen Hatshepshut at Deir-el-Bahri, with its clever grouping, was a much finer conception. The smaller temples of Ptolemaic times were designed with proper regard for architectural unity, and were the most typical expressions of Egypt's art. The bas-reliefs and sculptures in the round, executed during the period of the ancient Kingdom, would bear comparison with modern achievements after 6,000 years of artistic effort. Equally fine was the work of the Theban Empires. The modelling was richer and fuller, but handled with refinement and restraint. Decline set in at the end of the great Ramesside Dynasty, and although ebb alternated with flow, the tide of Egypt's power slowly but surely receded. Her art was founded on sincerity and directness, and the avoidance of the redundant and irrevelant, qualities by which the architect of to-day's work might well seek to be inspired.

INSTITUTION OF SANITARY ENGINEERS.

The board of examiners (chairman, Dr. G. S. Coleman, D.Sc., A.M.Inst.C.E.) have reported the results of the November examinations of this Institution:—

Associate Members.—N. P. Bregazzi, Redhill, Surrey; F. Morcom, Wem, Salop; W. G. Penny, Derby.

Student.—D. G. Brown, Minehead.

INSTITUTE OF BUILDERS.

Following is a list of successful candidates in the examinations for National Certificates and Diplomas in Building awarded by the Institute of Builders in conjunction with the Board of Education.

ORDINARY CERTIFICATE AWARDS, 1931.

BARNSLEY MINING AND TECH. COLL.
D. E. Chadwick.
E. Cutts.

BATLEY TECH. COLL.
C. R. Shepley.
A. H. Spencer.
G. Thompson.

BIRKENHEAD TECH. COLL.
A. Baird.
J. H. Jones.
L. V. Lindfield.
H. G. Norman.
W. L. Williams.

BIRMINGHAM—THE CENTRAL TECH. COLL.
J. B. Davis.
A. D. Pettifer.
W. C. Powell.
D. E. Teall.
R. Wright.

BIRMINGHAM — HANDSWORTH TECH. COLL.
J. W. Ball.
M. F. Faulding.

BLACKBURN MUNICIPAL TECH. COLL.
W. Clegg.
A. Greenhalgh.
H. Mullineaux.
H. Naylor.
J. Nightingale.

BLACKPOOL TECH. SCHOOL
J. M. Firth.
L. Foster.
R. Pye.
W. Thompson.

BOLTON MUNICIPAL TECH. COLL.
H. Baxter.

BOOTLE MUNICIPAL TECH. SCHOOL.
A. E. Ashton.
C. Brown.
J. P. Burke.
T. Lea.
D. O'Leary.
F. C. Shields.
D. Thorpe.

BOURNEMOUTH TECH. COLL.
J. N. Dominy.
H. R. Gibbs.
G. S. Kellaway.
E. J. Northover.
W. R. Woodhouse.
E. W. Woodrow.

BRADFORD TECH. COLL.
E. W. Jowitt.
E. J. Sauer.

BRIGHTON TECH. COLL.
S. H. W. Fuller.
A. G. Gilbert.
W. G. Norden.
V. R. Pierce.
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N. Duckworth.
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E. M. Minty.
F. A. Nicklin.
A. E. Redman.
L. Turner.

YORK TECH. INST.
J. P. Birch.
F. W. Cariss.
L. Weston.

HIGHER CERTIFICATE AWARDS, 1931.

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J. King.
W. E. N. Mercer.
G. B. Tuckwell.

BLACKBURN MUNICIPAL TECH. COLL.
F. P. Birtwell.
F. Dodgeon.
W. Hargreaves.
C. F. Howell.
C. Law.
F. Talbot.

BOLTON MUNICIPAL TECH. COLL.
C. H. Atkinson.
C. Booth.
S. Edge.
E. F. Smith.

BRADFORD TECH. COLL.
W. H. Drake.
J. C. Pratt.
R. Ratcliffe.
C. C. Rhodes.

CARDIFF TECH. COLL.
A. J. Assinder.
J. J. Galsworthy.
L. J. Prosser.
G. A. Shepherd.
A. R. Wheeler.

ERITH TECH. COLL.
A. G. Buck.
L. J. Huggett.

HALIFAX MUNICIPAL TECH. COLL.
R. Cockroft.
J. E. Hoyle.

LEEDS TECH. COLL.
L. Dunhill.
G. Lumb.
W. N. Walker.
F. A. Winterburn.

LIVERPOOL CENTRAL TECH. SCHOOL.
B. J. Ashcroft.
E. Aspinall.
S. P. Evison.
T. Hetherington.
W. E. Inions.
O. L. Keys.
H. A. Langford.
J. Muskett.
G. A. C. Potts.
R. H. Taylor.
O. G. Thomas.
V. Trant.
J. H. Walton.

MAIDSTONE TECH. INST.
J. G. Griffin.
A. C. P. Lihou.
W. Linksted.

BRIGHTON TECH. COLL.
W. E. Gander.
A. E. Hubbert.

LONDON—L.C.C. SCHOOL OF BUILDING, BRIXTON.
N. E. Back.
R. P. Coombes.
R. E. Harding.
F. R. Hynard.
J. F. Peacock.

LONDON — THE POLY. REGENT-STREET.
W. T. Milam.
E. L. Negus.
F. Powell.
H. Stephens.

ORDINARY DIPLOMA AWARDS, 1931.

HIGHER DIPLOMA AWARDS, 1931

LONDON — THE POLY., REGENT-STREET.
D. A. Dallyn (Miss).
K. M. Holmes.
D. Osman.
A. J. Webb.

MANCHESTER COLL. OF TECHNOLOGY.
R. Bull.
G. H. Taylor.
G. W. Walsh.
B. Wright.

Hull Master Builders' Association.

Mr. Oswald Darneley has been elected president of the Hull Master Builders' Association for 1932.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

QUESTIONS.

Builder's Profit.

SIR,—I should be obliged by answers to the following questions :—(1) What percentage for profit is usually asked by builders over (*a*) prime cost (material and labour, etc.) and (*b*) labour only? (2) Occasions arise when we have work to be executed, we buying our own materials and plant, also doing all setting out and general supervision. What percentage for profit ought to be paid to the builder from whom we hire the men? He is paid at the end of every month. (3) What is considered a fair percentage for builders to add on to prime cost when estimating?

W. G. N.

Junction Boxes.

SIR,—In the case of electric conduits running in concrete floors with hard paving, it is desirable that junction boxes should be accessible. Can you advise me whether there are on the market any guaranteed water-tight traps and covers for this type of fitting?

CIRCUIT.

Soil and Vent Pipes.

SIR,—I should be glad of advice as to whether, in the case of two water-closets, one on the ground floor and one over same, it is cheaper to make two connections to the drain, or to run both into the same soil and vent pipe. ECONOMY.

Liability for Sewer.

SIR,—Some time ago we built a number of houses on a plot of land, a small portion of which, containing one house, fronts on to a road which is not yet paved, and at the time we built was not sewered. We formed a street across the land, put in a sewer, and connected the house in question by means of a combined drain approved by the local authority. After the house had been completed, and while we were actually negotiating the transfer, we were informed by the Council that they proposed to put a sewer in the road previously mentioned, and as a frontager the house would be liable for a part of the cost. We immediately objected, on the grounds that we had only just completed our own sewer and drained our house, and, receiving no reply, other than an acknowledgment of our letter, presumed the matter had been dropped. We subsequently sold the house, and although we were not advised of it at the time, the solicitor, acting for both parties, caused a search to be made, and the apportionment was shown as an undischarged liability against the house. We should be glad to know who is responsible. We understand that the town clerk ruled out our objection as not being an objection under the Act, and did not bring it before the committee at all. OBJECTOR.

[**** This is essentially a matter on which legal advice should be sought before going further, and for that purpose many points would need to be further explained.

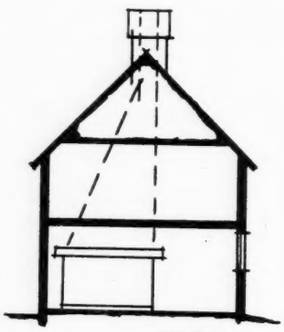
The inquirer does not say whether the local authority is proceeding under Section 150 of the Public Health Act, 1875, or not. It must be remembered that when the Private Street Works Act of 1892 has been adopted, this section (150) does not apply, and the procedure is different.

On the facts as stated, it does appear that the inquirer has no other remedy than to object to the apportionment of the frontage to the one house abutting on to the road referred to. The solicitor, acting for both parties to the sale, would appear to have been right in taking the course he did, though he ought to have informed the parties to the sale.

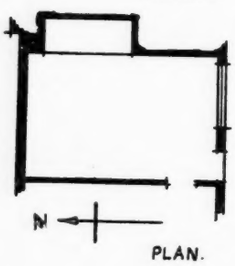
As the matter stands, the local authority will recover the apportionment from the owner or occupier, and it may be that under the deed referred to a claim might well be made by the owner or occupier or inquirer, but that is a matter on which he should take, as stated, specific advice as to what are the real terms of the deed of sale.—ED.]

Smoky Chimney.

SIR,—I have recently acquired a 15th century house, the living room of which contains an inglenook. Unless a door or window is left open the chimney gradually fills with smoke, which enters the room. I should be glad if any of your readers could advise me as to ways and means of abating the trouble. The width of the opening to living room is 8 ft. by 3 ft. deep and the beam is 4 ft. 6 in. from the floor. The height of flue to top of stack is approximately 30 ft., and the opening at top



SECTION.



PLAN.

is 14 in. by 13 in. The size of the room is 17 ft. by 11 ft. by 7. ft 6 in. high, and it contains one window and two doors. I enclose a sketch plan and section. I do not want to do any great amount of cutting about to the old work unless absolutely necessary, nor do I want to spoil the appearance of the building in any way.

YOUNG ARCHITECT.

ANSWERS.

Cube of House.

[ANSWERS TO "MATHEMATICS," DECEMBER 25.]

SIR,—Estimating by cube is a pure convention. There is no reason why it should not be measured one-third of the way up the roof or a quarter, but if this were done the prices per foot cube, arrived at by experience, would be correspondingly increased owing to the change of convention. As a matter of fact, the mathematical cube of a house is arrived at truly, measured one-half the way up the roof if the roof is gabled each end. If it is hipped the cube of the roof is the same as above for the length of the ridge plus the cube of two half pyramids, so that "Mathematics" is wrong in his premises, in any case.

CUBE.

SIR,—Does not "Mathematics" know the elementary rule that the cube of an object having parallel sides is the area of its cross-section multiplied by its length? As the area of a triangle is equal to the product of the base and half the height, surely one is justified in taking the height to half the rise of the roof (which is the same thing as to a point half way up the slope) when cubing a house having a pitched roof. W. R. FERRIS.

SIR,—"Mathematics" is surely leading us into the higher branches of his subject and neglecting the elementary. The centre of gravity of a triangle is certainly one-third up from the base, but cubic capacity has nothing to do with this. It is the product of the length and the cross-sectional area, and as the area of a triangle is half the base × the height, the point to measure to is obviously half-way up the roof.

A. L. LINFORD.

SIR,—"Mathematics" has apparently to learn the elementary rule that the area of a triangle is the length of the base multiplied by half its height; hence the reason for measuring up half the height of the roof slope and not entering into questions of centroids.

R. W. SCHOFIELD, M.I.Struct.E.

Party Drains.

[ANSWERS TO "OWNER," DECEMBER 25.]

SIR,—"Owner" does not say where the properties are situated. In the Metropolis combined drainage is provided for; and in most instances the question of the local authority being responsible for the maintenance of a combined drain does not arise.

Outside the Metropolis, if a pipe connects two drains from properties in different ownerships, then from the point at which they connect there is in general a "sewer" which is repairable by the inhabitants at large. The local authority would, in such matters as described by "Owner," be responsible for any cost necessitated in putting it into repair, even if it is under a house. But the data given by "Owner" are insufficient to give a satisfactory and comprehensive answer to his question and he should take legal advice before going farther, for the few facts given suggest that there is no combined drain at all in this instance. LEX.

SIR,—There is no doubt that if the work involved necessitated such an extensive labour, some alternative route of drain would be arrived at in the interests of all parties.

COMMON SENSE.

Concrete Roads.

An answer to "Surveyor's" question on this subject (December 18) received from Messrs. Samuel Williams and Sons, Ltd., has been forwarded.

Weather Boarding.

[ANSWER TO "CONSTRUCTION," DECEMBER 18.]

SIR,—Deal weather boarding creosoted under pressure has considerable lasting properties, but periodical coatings of creosote are necessary if it is to be preserved, since weather penetrating any open pores is bound to cause deterioration in the wood. Elm weather boarding has an almost indefinite life, and generally outlives the nails with which it is secured. The writer has knowledge of such weather boarding which has been up over thirty years and is still full of life. TONE.

Septic Tank.

[ANSWER TO "ESTATES," DECEMBER 11.]

SIR,—The septic tank should not be designed so that it is necessary to open it when the drains are rodded out. Every time air is admitted the bacteriological action is checked or stopped. The trap should be in the wall of the last manhole. DRAINS.

Right of Light.

SIR,—In correcting "Light's" reply to "Crown's Glass's" inquiry, Mr. E. Seel has fallen into another error. Nineteen years and one day's enjoyment do not confer a right of light, nor, in fact, does any other period in gross.

No right is acquired after 20 years' enjoyment under the Act unless the right is called in question in an action. The statutory period is a period of twenty years immediately before action, enjoyed other than by some consent or agreement made or given for that purpose by deed or writing That period must be free from obstruction; but, as that obstruction must be for one year to defeat the claim, it is evident that after nineteen years and one day's enjoyment a full year's obstruction cannot exist within the twenty years before action, and it would not be possible to complete twenty years' unobstructed immediately before action. But the right cannot be established or enforced until the expiration of the twenty years' immediately before action.

BERNARD DICKSEE, F.R.I.B.A.

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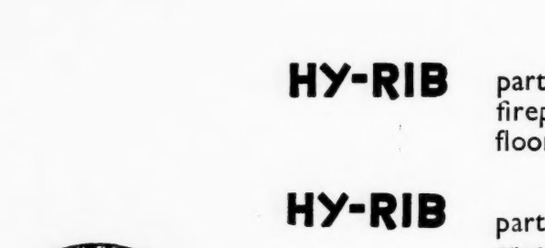

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THE BUILDING TRADE

THE LESSONS OF EXPERIENCE.—I

By J. R. TAYLOR.

Prefatory.

In spite of example and precept we each in turn fall into the same old traps and scramble out of them as best we may; and though now and then we put up a warning notice at the more dangerous corners, it is by no means certain that adventurous youth will not scorn it or even make a cockshy of it. But to the man who would arrive safely at the end of his journey, even a half-obliterated notice board has its uses, because it will perhaps put him upon inquiry. With upwards of forty years of varied experience in the building trade behind me, I have slipped, and seen others slip up, and had I another forty years in front of me I should probably slip up again, but I hope the occasions would be fewer. It is in some such spirit as this that the following articles will be offered to the reader, and in particular to the young reader. But though the greater part of what I have to say will be founded on and related to personal observation and experience, I hold myself at liberty to draw on the related or recorded experiences of others where it would seem that a useful lesson may be learned. I do not propose to maintain an orderly sequence, for I am not writing a text-book, and occasionally the subject-matter will be a little foreign to my title, though all experience contains a lesson of some sort.

Testing Foundations.

In a provincial newspaper it was recently recorded that a subsidence had occurred on a certain council's housing scheme. It was stated that the subsidence was caused by a basin in the ground having a depth of about ten feet. It had a hard, thick crust over it, and for that reason was not found out sooner. It was also pointed out that this was something that could happen to any housing scheme and was the fault of no one. There were huge cracks in the walls and the stone steps were broken, and it was stated that the houses would probably have to be rebuilt.

This statement goes a little too far in assuming that the subsidence is something that might happen to anybody, because the word anybody is here used in the sense of everybody. It might happen under similar circumstances to anybody who had no previous knowledge of such a happening nor of the methods to be adopted to render it unlikely to happen in this case. In very heavy foundation work it would be unlikely that an architect would be satisfied with a mere inspection unless he was quite certain that he was on compact virgin subsoil, and even then he might feel that it would be better to put it to the test. Various methods of testing are laid down in the text-books, but in most cases they involve some delay and are hardly necessary on small domestic works.

Before we came to use concrete for foundations as a matter of course, some thirty to forty years ago, when most buildings of two stories were erected on spreading brick footings laid on natural soil, most competent builders applied a rough and ready test; especially when the digging revealed any inequalities in the spoil. Just as a pile is driven until the last blows from the monkey register but a predordained amount of penetration and so ensure stability, so the builder or his foreman had stout, long crowbars driven at intervals along the line of trench and watched their behaviour under the sledge hammer. They did not work to tables of measurement weight and counted blows, but relied on competent observation founded on experience, and failure rarely followed. Such a test would have revealed the basin referred to in the report quoted because the bars would have penetrated the crust and accelerated travel would have shown a fault to be present. It is not always necessary to apply even this simple test, but it is always desirable when even slight irregularities of strata are discovered during excavation.

For many reasons there is always a certain amount of danger in building on clay without test. A good navvy, provided he has many years of varied experience behind him, can generally tell when it is virgin and in a fit state to be trusted. But not all trenches are dug by navvies; not all navvies are old and experienced; nor are they geologists. Possibly (I write without having seen it) the basin referred to was at one time a cattle drinking pond, which had been filled up. If so, and it were in clay, the final filling might also be of clay dug from a new pond in a more convenient position and be placed on the accumulated mud and vegetable matter choking the old pond. It would then be more difficult to detect that it was made-up ground, but it would still reveal itself to the experienced. A frequent fault met with in clay is that of inequality of thickness of crust over other looser strata. At one point boring will give a great thickness of clay, while at another place not so far away as to be out of bounds for a plan of no great area the clay may be but a thin crust and sometimes lets one down into running sand. Veins of gravel are also met with, and, if they contain any considerable volume of water, or have or are provided with means of escape, may result in widespread damage. Not many years ago some such result ruined a contractor, who had pumped out large quantities of sand with the water when carrying out large-scale foundation work.

Another trouble not infrequently met with in clay, but more frequently with drainage work than with foundations, is the unsuspected presence of pockets of peat or bog. In spells of dry weather, with hard, marly clays it is possible to cut drains to considerable depths with but little timbering, provided that short drifting can be resorted to at not too great intervals, and the trenches do not remain open for too long a time. If, however, one or more of these pockets be met with on the line of sewer much unforeseen expense and a considerable element of danger may result.

For some failures it would be hard to place responsibility. Such a one came to my notice a good many years ago under the following circumstances. The site selected for a new railway station in a market town was abandoned after a considerable amount of cutting had been done where the line would have been carried through a ridge. Most of the spoil was taken back to form an embankment below the ridge, but the gravel was reserved for ballasting the permanent way.

After the line had been diverted to another part of the town, the cutting remained open for several years as a tip, and received surplus soil from neighbouring works as well as refuse. Ultimately the gravel that had been put on one side was used to level off the site and formed a thickness of some three feet or a little better. A few more years passed and the land changed hands and received a row of cottages with brick footings at a depth of two feet. Failure followed and the fronts were pulled down and rebuilt on concrete three feet wide and two feet thick Failure again followed, and on this occasion the position was explored. and the front was rebuilt on short concrete piles formed *in situ* and connected up with a reinforced concrete sill. The first builder could not be very seriously blamed as he knew nothing of the history of the site and he did not dig through the gravel. But the bar test would, if properly carried out, have shown that there was something wrong, and an old navvy would have had his suspicions awakened because the gravel must have offered evidences of previous disturbance.

The clause in old specifications that called upon the builder to leave his foundation trenches open until after inspection by the architect was not inserted for the purpose of preventing the builder working to a shallower depth, or, at all events, not primarily for that reason. The object sought was that of giving the architect an opportunity for inspecting the bottoms and sides of the trenches and coming to a judgment whether stable conditions had been attained at the estimated depths. It is true that he already had in many cases the evidence of the trial holes, but he knew that variations might set in at no considerable distance from these holes. In the days of cellared, basemented and half-basemented houses, knowledge of the freakishness of subsoils was more easily come by than is now the case when the building is pegged out on Monday and has the damp course inspected on the following Wednesday.

(*To be continued.*)

HOUSING ACHIEVEMENTS OF METROPOLITAN BOROUGH COUNCILS

By JAMES P. ORR.

Most of the Metropolitan Borough Councils elected for the last three-year period have found the housing problem the most difficult of the many which they have had to tackle. Electors may rightly expect their councils to publish an account of their stewardship, showing what they have done.

(i) to ascertain the extent of the need for new dwellings and for repair of old dwellings;

(ii) to prepare a programme for meeting those needs;

(iii) to carry out this programme so far as their powers permitted;

(iv) to point out to the L.C.C. and Government the steps which they could take towards helping to meet these needs.

Under the first head (needs) the questions that arise include the following :—

(a) Has the extent of overcrowding in the Council's own dwellings and in other dwellings, especially tenemented houses, been investigated?

(b) How many dwellings of the several different types are required, in what localities, and at what rents, in order to give direct and early relief to families who are suffering from serious overcrowding or from conditions dangerous to health?

(c) How many new dwellings of the several different types have been applied for? How many of the applications have been classed as urgent? On what principles has this classification been made?

(d) How many dwellings would be closed as unfit for human habitation but for the difficulty of finding alternative accommodation for the occupants?

Under the second head (programme) the following questions arise:

(a) How many new dwellings of the several types have been provided for in each scheme in the programme, and at what general range of rents in each class (2-, 3-, 4-, and 5-roomers) and how far have they been earmarked for families suffering from serious overcrowding?

(b) In each scheme what is contemplated as the average per house for capital cost, rent per week, and annual loss?

(c) What action is proposed towards getting old dwellings improved by reconstruction or repairs?

Under the third head (progress) the actual achievements under (a), (b), and (c) of the second head may be summarised with the reasons for any falling short of what the programme contemplated.

Under the fourth head (co-operation), any recommendations made to Government or the L.C.C. may be set out along with some account of the reception given to these recommendations and of the outcome thereof.

The L.C.C. annually publish statistics of their housing estates, giving detailed information as to the number and types of the homes they have provided and as to the rents charged on each estate.

It is suggested that each borough council should publish similar statistics. These, combined with information as to capital cost and annual loss in terms of average per house, will enable ratepayers to see what class of people have been relieved and to judge whether the game is worth the candle, and whether any improvement in the council's programme can be suggested.

THE MAKING UP OF PRIVATE STREETS

In our issue of February 27, 1931, we noted a case, Cardiff Corporation *v.* Cardiff Pure Ice and Cold Storage Co., in which the question was raised whether notices to make up a private street were invalid on the ground that the time allowed in the notices was unreasonable. This is a point that can be taken under the Public Health Act, 1875, even when the frontagers have taken no steps to comply with the notice to make up the portions of the street themselves (a course in practice rarely, if ever, adopted), but have allowed without protest the local authority to do the works (see Bristol Corporation *v.* Sinnott (1918, 1 Ch. 62; *The Builder*, December 21, 1917)). In that case notices had been served upon the frontagers to do the work within one calendar month, and the frontagers neither undertook the work nor raised objection to the notices. After three months the local authority put the works in hand and completed them in four months, but in proceedings to recover the respective amounts incurred against the frontagers it was held by the Court of Appeal that the notices were bad in not specifying a reasonable time for the execution of the works; that the frontagers, in standing by and doing nothing, had not waived their right to take the objection, and that the local authority could not recover the expenses.

In Macclesfield Corporation *v.* Governors of Free Grammar School of King Edward VI. (1921, 2 Ch. 189; *The Builder*, November 25, 1921) a High Court judge held, on an application by the local authority for a charging order on the premises of the frontagers in respect of works done by the local authority in default by the frontagers, that the three months allowed for the execution of the works was a reasonable time, and the Court intimated that although notices issued to the frontagers need not contain sufficient time for the making up of the whole road, but only for the work to be done by the particular frontagers, yet in this case the time allowed was reasonable from either point of view. This question came up again in the Cardiff Corporation case, the subject of our note of February 27, when it was decided by the Court below, but the decision has since been reversed on appeal, and is reported 95 J. P. 11.

The proceedings were taken under a local Act, the Cardiff Corporation Act, 1884, which, so far as the point is concerned, appears to have contained provisions similar to the Public Health Act in so far as notices had to be served on the frontagers to do the work, and on their default the local authority could execute the works and then recover the amounts from the frontagers. The order in question specified that the works should be completed within two months, but the matter was complicated by the fact that the estimate and plans showed that under part of the street the Corporation were at the same time to lay a sewer, with which some of the frontagers were required to connect the works which they were required to do. The Court below had held that the time fixed was not reasonable, as it was not an order to the individual frontager to do work on the sections of the street on which his premises abutted, but to do work simultaneously with work to be performed by the Corporation, and that in fixing the time the possibility of each frontager doing his portion of the work himself had not been taken into consideration. The Court of Appeal reversed this decision, holding that the time fixed by the order was not unreasonable in the circumstances, and there was no evidence to show that if the frontagers had done the works themselves the Corporation would have hampered them by laying the sewer simultaneously. The frontagers were entitled to comply with the order and to restrain any interference with them, but, not having done so, they were liable for the expense of the work done for them, and the Corporation was entitled to the charge upon the premises they applied for in the summons.

This question of frontagers doing the work themselves is practically academic, as we believe it is a course never followed in actual practice, and in the more modern statute, the Private Street Works Act, 1892, no such question arises, as the local authority can do the work straight away. We think it would save useless litigation if the provisions in Section 150 of the Public Health Act, 1875, were brought into line with the Private Street Works Act, and also that in future local Acts the precedent afforded by the latter Act should be followed. As long as this provision calling upon frontagers to do the work themselves continues in force, it is, as we have frequently pointed out before, against the interests of the frontagers that the time fixed should relate only to that portion of the work each frontager is severally called upon to undertake, for the only possible way in which frontagers could execute work of this description would be to combine and employ a contractor, and this is rendered impracticable if the time fixed relates not to the whole work, but only to the several frontages. If the point itself is, as we say, academic, as frontagers are not likely to undertake such works personally in any way, what is to be said of the litigation which this provision encourages? Frontagers who never have had the least intention of executing the work themselves, as the above cases show, are able to come to the courts after the local authority have done the work to claim exemption from the cost on the totally hypothetical ground that the time allowed in the notices would have not been reasonable had they elected themselves to do the work. As we have also previously pointed out, local authorities can steer clear of this rock by always fixing an abundantly sufficient time for the execution of the whole of the works required.

Alexandra Palace.

It is understood that the Alexandra Park trustees have decided to take no further action for the time being in connection with the scheme for the renovation, modernisation, and improvement of Alexandra Palace and Park, in view of the national necessity. A meeting of interested Members of Parliament is to be held at the Westminster Guildhall to discuss the best way of securing Government assistance for the scheme and effecting its completion.

ULSTER PARLIAMENT BUILDINGS

At a meeting of the Institution of Structural Engineers a paper on "Ulster Parliament Buildings at Stormont, Belfast," was read by Mr. W. J. Stewart, M.P., M.I.Struct.E. These buildings, now nearing completion, said the lecturer, had been constructed for the occupation of the Government of Northern Ireland. They were in the Greek classical style, relying for effect upon the simple and well-proportioned masses, the only elaborations being in the central feature of the main façade, and also in a small degree in the entrances on east and west façades. Portland stone was used, on a plinth of unpolished grey granite from the mountains of Mourne. The structure was 369 ft. long, 167 ft. deep, and 70 ft. high, rising to almost 100 ft. at the centre, with a total volume of approximately five million feet cube.

Work was begun on March 31, 1924. Approximately 160,000 cubic yards of material were excavated and removed from the site to another portion of the estate. The time given for this work was four months. It was agreed that the only method for the excavation was by mechanical shovels, and four of these tools were put on the site immediately. The removal and disposal of the material from the shovels presented a problem. As the dump was over a mile away, and at a lower level, a cable ropeway was brought into service, this being considered more suitable than a railway track. In the foundation of the superstructure there were the following approximate quantities:—80,000 yards cube excavation, 20,000 yards cube concrete in building foundations, retaining walls, etc., over 10,000 yards lineal cast-iron and concrete drains in trenches, up to 20 ft. deep, and also about 700 trees had to be felled and removed.

The arrangements for concreting were gone into carefully, and dumps of sand and stones were formed on the east side of the basement. These dumps were made up to about 5,000 tons before the concrete work commenced, so that, once started, this work could be continuous. A battery of three mixers was placed on side of basement at east end with chutes down to the wagons in basement. Behind the mixers were the huge dumps, and between the mixer and the dump a track was laid in the form of an ellipse. The wagons for filling the hoppers for the mixer were accurately divided into compartments containing the proper proportions of stone and sand. These were filled as they passed their respective dumps, and pushed round to mixer and emptied. The cement store was also alongside the dumps. The mixed concrete was deposited by chutes into wagons in the basement and conveyed to required points. The maximum output of concrete per day was 450 cubic yards, and the average 150 cubic yards.

The reinforced concrete reservoir measured 100 ft. internal diameter, walls 12 ft. high, varying in thickness from 10 in. at the base to 5 in. at the top, capacity 500,000 gallons. In connection with this reservoir, a concrete settling tank and a small dam in the ravine lying east of the site had to be constructed at higher level. The reservoir was built into the side of the hill, and its foundations, as well as those of the dam and the settling tank, had to be sunk into solid rock. A cross wall ran north and south, 8 ft. high, so that each section of the reservoir could be cleaned without disturbing the supply to the main building.

The main contract for the superstructure was begun in 1928, the contract time being three years. The quantities of materials used in this building were:—135,000 cu. ft. Portland stone and granite, 16,000 cu. yds. brickwork, 7,000 cu. yds. concrete, principally

in floors, 100,000 sq. yds., or over 20 acres of plastering. From the contractor's point of view it was important to have drafted a well-considered and detailed organisation and system before the work was begun. For this particular job they went fully into the work to be done, dissecting the scheme in floors, the quantities of stonework, brickwork, etc., from ground to first floor, first to second floor, and so on. When this was done they fixed dates for the completion of the structural work up to and including the roof, commencement and completion of all internal trades and site work. Plans were prepared carefully and the work was carried out to a schedule.

Rotation in the stonework had to be strictly adhered to, as in this type of building the walls had to be raised, course by course. Every stone in the building was marked for identification and reference before being despatched from the works, in accordance with an accurately marked key drawing. The foreman stone-setter had therefore only to indent from the works for the supply of the particular stones required for the following day's work. As the speed of the job depended on the working and setting of the stone, monthly, weekly and even daily programmes were made and carried out.

The supply of the materials to the site and the receiving and allocating of these was one of their greatest problems, as would be realised when it was considered that week by week they had to provide for the receiving of 100,000 bricks, in addition to 1,200 to 1,600 cu. ft. of stone, and all the other materials required to work these up.

All the concrete floors were of trussed concrete design, in which were embedded the heating panels forming the system of panel heating throughout the building. The roof was also of reinforced concrete on the same design and flat, being asphalted over. Immediately sufficient of this was done to give protection the plastering work was begun.

All the lighting areas were faced with special silver-grey sprayed bricks. These bricks had a silver-coloured spray on the face for lighting purposes. This type of brick gave a much more pleasing effect than the ordinary white or ivory glazed brick, and it also blended with the colour of the Portland stone strings.

While the constructional work was in progress the doors, windows and joinery generally were being proceeded with, and were all ready by the time they were required. There were some 700 windows, 500 doors and thousands of feet of skirting and architraves, the timber being mahogany for windows and doors generally, but some of the doors were of Canadian red pine. At present joinery work was being completed in Australian walnut and English oak for several of the parliamentary rooms on the ground floor.

NEW CINEMAS

Bayswater.—Messrs. W. F. Blay, Ltd., 1, Dowgate-street, E.C.4, have obtained a contract for erecting the cinema proposed at the corner of Westbourne-grove and Queen's-road, for Mr. Dawes, of the Palace Cinema, Kensal Rise. The architects are Messrs. J. Stanley Beard and Clare, F. and A.R.I.B.A., 101, Baker-street, W.1.

Hove.—A company, Hove Cinema, Ltd., with office at Dean House, Dean-street, W.1, has been registered to enter into an agreement for the acquisition of land and buildings at Hove, Sussex, to carry on the business of cinema proprietors, etc. The permanent directors are Messrs. D. Mistlin, 94, Montpelier-road, Brighton, and N. Lee, 17, Princes Park-avenue, Golders Green, N.W.

Orpington.—Mr. A. Spencer-May, of the Palace, Orpington, proposes to erect a 1,000-capacity cinema on a site in the centre of the town. A café and possibly a dance-hall and car-park may be included.

NEW BUILDINGS IN LONDON

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Wednesday morning.*

Acton.—FLATS.—The Town Council invite tenders for the erection of eight flats in two blocks at Brouncker-road, Acton, W.3. Mr. W. G. Cross, Borough Engineer, has prepared the plans.

Betterton-street. — REBUILDING. — Messrs. W. H. Woodroffe and Son, 5, Bedford-row, W.C.1, are the architects for the building of premises in Betterton-street, Holborn, W.C.1. The builders are Messrs. Mullen and Lumsden, Ltd., 41, Eagle-street, W.C.1.

Blackfriars.—PREMISES.—Messrs. J. Sainsbury, provision merchants, are to have new premises erected at Blackfriars, S.E.1. The designs have been prepared by Sir E. Owen Williams, K.B.E., 5, St. George's-road, S.W.1.

Brimsdown.—EXTENSIONS.—Messrs. E. A. Roome and Co., Ltd., of Crown Works, Urswick-road, Hackney, are carrying out extensions to Messrs. Ruberoid's factory premises at Brimsdown, under the supervision of Mr. A. Alban H. Scott, F.R.I.B.A., 13, Old-square, Lincoln's Inn, W.C.2.

Brixton-road. — ADDITIONS. — The Royal Arsenal Co-operative Society, Ltd., are erecting additions at the rear of 52, Brixton-road, S.W.

Fulham.—IMPROVEMENTS. — The Fulham B.C. are inviting tenders for Thames flood defence works at Bishop's Park, Swan Wharf, High-street, and Crabtree Drawdocks and Townmead Wharf. The Borough Engineer and Surveyor has prepared the plans.

Hackney.—FLATS.—Messrs. Higgs and Hill, Ltd., Crown Works, South Lambeth-road, S.W.8, are the builders for flats at 197-205, Amhurst-road, E., for the Samuel Lewis Trust. Messrs. Joseph, 2, Paul's Bakehouse-court, E.C.4, are the architects.

Kingston-on-Thames. — SHOPS. — Messrs. Lewis Solomon and Son, architects, 21, Hart-street, W.C.1, have prepared plans for the erection of an arcade of lock-up shops in Apple-market and Union-street. Messrs. C. Tavener and Son are the builders.

Lambeth. — ALTERATIONS. — Messrs. Y. J. Lovell & Son, 6, Bathurst-street, Lancaster-gate, W.2, are the builders for alterations to the "Steam Engine" public-house in North-street. Mr. G. Berkeley Wills, F.R.I.B.A., 7, Stone-buildings, Lincoln's Inn, W.C.2, is the architect.

Millwall.—ADDITIONS.—Mr. T. H. B. Scott, 11, Finsbury-square, E.C.2, is the architect for additions to 297, West Ferry-road, E.14. The builder is Mr. William Figg, George-row, S.E.16.

Paddington.—ALTERATIONS.—Sir Edwin Cooper, A.R.A., 4, Verulam-buildings, Gray's Inn, W.C.1, is the architect for alterations to St. Mary's Hospital, Praed-street, W.2. The builders are Messrs. Higgs and Hill, Ltd., Crown Works, South Lambeth-road, S.W.8.

Paddington.—OFFICES.—For the erection of a new cartage office at Paddington Goods Station, the Chief Engineer to the Great Western Railway is now inviting tenders.

Poplar.—ALTERATIONS.—Mr. C. J. Bailey, of Messrs. Watney, Combe, Reid and Co., Stag Brewery, Pimlico, S.W.1, has prepared plans for alterations to "The Addington Arms" public-house, 25, Addington-road, E.3. The building contract has not yet been settled.

Poplar.—PRESBYTERY.—Mr. W. C. Morgan, 36, Southampton-street, W.C.2, has submitted plans to the Poplar B.C. for the erection of a new presbytery at St. Mary and St. Joseph's Church, Canton-street, E.14.

Poplar.—ADDITIONS.—Mr. S. A. S. Yeo, 2, St. John-street, E.C.1, is the architect for additions to the "Ancient Briton" public-house, 42 and 44, Glaucus-street, E.14; and to the "Sun and Sawyer," 241, High-street, E.14. Plans for both schemes have been approved by the B.C.

Teddington.—LABORATORY.—H.M.O.W. has placed a contract with Messrs. Wilson Lovatt and Sons, Ltd., 569, Abbey House, 2, Victoria-street, S.W.1, for the erection of the first block of the chemical research laboratory, at the Teddington National Physical Laboratory.

Waterloo-road.—CHURCH CENTRE.—The old watch-house overlooking the cemetery of the Church of St. John the Evangelist is to be demolished and rebuilt to serve as a church centre. The Rev. Chas. Hutchinson is the vicar.

White Hart-street, S.E.—PREMISES.—Messrs. Joseph, 2, Paul's Bakehouse-court, E.C.4, are the architects for new business premises at White Hart-street, S.E. The builders are Messrs. Higgs and Hill, Ltd., Crown Works, South Lambeth-road, S.W.8.

A PRESENTATION

COUNCILLOR E. J. STRANGE, J.P., of Tunbridge Wells, was recently entertained to a complimentary luncheon at the Connaught Rooms by the members of the Administrative Committee of the Southern Counties Federation of Building Trades Employers. On behalf of the Committee, Mr. Arthur Francis, of Reading, President of the Association, presented Mr. Strange with a silver coffee pot, inscribed as follows:—"Presented to E. J. Strange, Esq., J.P., F.I.O.B., by the members of the S.C.F.B.T.E. in recognition of distinguished and devoted service. December 10, 1931."

Making the presentation, Mr. Francis referred in most appreciative terms to the exceptionally long and devoted service which Mr. Strange had rendered to the building industry. It was well known, he said, that Mr. Strange had been one of the pioneers in founding and building up the splendid and efficient national organisation from which the industry had received so much benefit. He was one of the early negotiators who formulated the National Agreement, the provisions of which had been so successful in bringing about and maintaining peace in the industry. The speaker also referred in detail to the services which Mr. Strange had rendered, in particular, to the Southern Counties Federation of Building Trades Employers over a period of 20 years, and to the distinguished manner in which he had filled the office of President of the Federation some years ago.

Mr. John Croad, Mr. H. E. Collier, and Mr. Brooker also paid tributes to Mr. Strange's personality and work for the building industry.

After his health had been toasted, Mr. Strange, in response, said he found it most difficult on that occasion adequately to express his deep feelings of appreciation for their great kindness and generosity. He could only say a very heart-felt "Thank you" to them all. There was one thing in connection with Federation work which he had learnt to appreciate more than anything in life, and that was the friendships that he had made, which he hoped would always continue in the future. He was more than rewarded for any small services he had been able to perform, as he looked back over the years, by the knowledge that the organisation which so many had helped to bring into being had proved of so much help and benefit in so many ways.

Mr. and Mrs. Strange are shortly proceeding on a voyage to the East, and hope to be back in this country by September.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1931.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Accrington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Aldershot	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Alfreton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Alnwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Altrincham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ashford (Kent)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Ashington	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ashton-under-Lyne	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Aylsham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Barnstaple	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barrow-in-Furness	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Barry	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Berwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bexhill	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Birkenhead	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Birmingham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bishop Auckland	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Blackburn	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Blackpool	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bognor Regis	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bolton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bradford-on-Avon	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Braintree	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bridlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromsgrove	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bromyard	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Bungay	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Burnley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury St. Edmunds	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Buxton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Cardiff	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Carlisle	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chesterfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chorley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cirencester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Clacton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cranbrook	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cromer	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Darlington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Deal	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Denbigh	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Derby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Devizes	1/3	1/3	2/3	1/3	1/3	1 3	1/2	11½
Dewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1 6½	1/2
Doncaster	1/6½	1/6½	1/6½	1/6½	1 6½	1/6½	1/6½	1/2
Dorchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Dorking	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Droitwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
E.Glam.(Mon. Val.)	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ely	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Exmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Fakenham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Felixstowe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Frome	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Glossop	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Godalming	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Goole	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Gosport	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grantham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Gt. Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Grimsby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Guildford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Halifax	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Harpenden	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Harrogate	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hartlepools	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Hatfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hednesford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hereford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Herne Bay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Huddersfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hull	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hunstanton	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huntingdon	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Isle of Wight	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Keighley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Kettering	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Kidderminster	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Kings Lynn	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Sp	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leicester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leighton Buzzard	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Littlehampton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Liverpool	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Llandudno	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Llanelly	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
London—								
12 m. radius	1/8	1/8	1/8	*	1/8	1/8	1/7	1/3
12-15 m. radius	1/7½	1/7½	1/7½	*	1/7½	1/7½	1/6½	1/2½
Loughborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lowestoft	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Macclesfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Malvern	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Mansfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Market Harborough	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Matlock	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Melton Constable	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Melton Mowbray	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Merthyr Tydfil	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Middlesbrough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newark	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Newbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newcastle-on-Tyne	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newcastle-u-Lyme	1 6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
New Forest	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newport, Mon.	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Northampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Norwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Nottingham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nuneaton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Paignton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Peterborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Redcar	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Redditch	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Reigate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Retford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Ripon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Rochester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Saffron Walden	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sawbridgeworth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Saxmundham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Scarborough	1/6	1/6	1/6	1/6	1/6	1 6	1/6	1/1½
Sevenoaks	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sheffield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sittingbourne	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
South Shields	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stevenage	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stockport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stockton-on-Tees	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stoke-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourbridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stourport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stowmarket	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Stratford-on-Avon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Swaffham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Swansea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Tamworth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Thetford	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Torquay	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Trowbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Uttoxeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Walsden	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warminster	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Warrington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wells (Norfolk)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Welwyn Gar. City	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
West Bromwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Weston-sup-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Whitby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wigan	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Winchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wisbech	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wolverhampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Woodbridge	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Worksop	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Worthing	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wrexham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wycombe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wymondham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

*The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, as and from the 1st February, 1931, is 1/10½ per hour.

For Building Trade wages in Scotland, see page 36.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor S.; Engineer, E

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

JANUARY 4.

Bakewell.—Painting.—Internal painting at institutions, for Derbyshire C.C. County Architect, Derby.

Beaconsfield.—Houses.—36 non-parlour and 8 parlour type houses on Amersham-rd. housing site, for U.D.C. J. H. Crosby, E. and S. Dep. £3 3s.

Belper.—Painting.—Internal painting at Poor Law Institution, for Derbyshire C.C. County Offices, Derby.

Cardiff.—Depot.—New parcels depot, booking office, and other works, at general station, for the directors of the G.W.R. Co. Engineer, Paddington Station, W.2. Dep. £2 2s.

Doncaster.—Shed.—New cow shed at Manor Farm, Thrybergh, and new store at Thrybergh reservoir, near Rotherham, for C.B. F. Oscar Kirby, Water E.

Glasgow.—Installation.—Electric lighting installation at Cathedral-st. re-housing scheme, for T.C. General Manager, Electricity Dept., 4, West Regent-st., Glasgow, C.2.

Gt. Yarmouth.—Store.—New buoy store and dwelling and for various structural alterations, at Trinity Depot, for Corporation of Trinity House. M. K. Smith, Secretary, Trinity House, Tower Hill, London, E.C.3. Dep. £1.

Kingston-upon-Hull.—Railings.—At Barnsley-st. and New George-st. flats, for T.C. Herbert Hamer, City E.

Lanark.—Houses.—20 at Strutherhill, Larkhall; 4 at Hamilton-st., Larkhall; 16 at Ashgillhead, Dalserf, for C.C. P. C. Smith, County Housing and Town Planning Department, 13, Clydesdale-st., Hamilton.

Newcastle-under-Lyme.—Extension.—Of seating accommodation in Council Chamber, Town Hall, for T.C. A. A. Pattison, B.E. and S.

Skelmersdale.—Cottages.—16 semi-detached cottages on sites in School-lane, Skelmersdale, for U.D.C. S. Dep. £2 2s.

JANUARY 5.

Bedworth.—Houses.—70 non-parlour type houses and appurtenant works at recreation ground and adjacent allotments at Bedworth Heath, for U.D.C. H. W. Crowther-Green, E. and S. Dep. £1.

Birmingham.—Building.—Medical superintendent's office, visitors' waiting-room, lavatory accommodation, etc., at West Heath Sanatorium; new mortuary, pathological and post mortem block at Selly Oak Hospital; provision of heating installation, hot and cold water, steam, gas and fire hydrant services, for T.C. F. H. C. Wiltshire, T.C. Dep. £2 2s. each.

Greenock.—Houses.—42 in tenements and flats at Low Bow Farm, Low Cornhaddock Farm, and Mount Pleasant-st., for T.C. Director of Housing.

Kingswood.—Houses.—44 non-parlour type on Cheltenham-rd. Housing site, for U.D.C. G. Fletcher, S. Dep. £2 2s.

Pembroke.—Cottage.—Caretaker's cottage adjoining Solva Congregational Chapel. W. H. John, secretary, Solva.

Portsmouth.—Flats.—(a) 30 flats in York-pl., Portsea, and (b) 12 flats in Britain-st., Portsea, for T.C. R. J. Jenkins, City E. Dep. £3 3s.

Portsmouth.—Extension.—To stores and workshop at Eastney Pumping Station, for T.C. City E. Dep. £2 2s.

Southampton.—Laboratory.—New laboratory, fencing, etc., at Purbrook Park County High School, for C.C. A. L. Roberts, County Architect, Winchester. Dep. £1 1s.

Wakefield.—Houses.—22 small houses, for T.C. Percy Morris, Housing Architect.

JANUARY 6.

London.—Heating.—Accelerated low-pressure hot water heat at (a) "Valentine" telephone exchange, Ilford; (b) County Court, Shoreditch, for H.M.O.W., Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Wakefield.—Housing.—12 houses at Middlestown, for R.D.C. W. E. Massie, E. and S.

JANUARY 7.

Bangor.—Additions.—To church premises for committee of first Bangor Presbyterian Church. S. A. Orr, Bach., civil engineer and architect, 49, Victoria-st., Belfast. Dep. £2 2s.

Bradford, Yorks.—Employment Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Bucklow.—Houses.—25 non-parlour type off Mosslane, Partington, together with drainage and all appurtenant work, for R.D.C. H. V. Shaw, E. and S., Station-bldgs., Altrincham. Dep. £2 2s.

Southampton.—Additions.—Alterations and additions to Fawley Beacon, Southampton Water, for Harbour Board. E. Cooper-Poole, engineer, Harbour Offices, Town Quay. Dep. £2 2s.

JANUARY 8.

Belper.—Wiring, etc.—Electric wiring and lighting of Infirmary building at Poor Law Institution, for Derbyshire C.C. County Architect, Derby.

Croydon.—House.—On Beddington sewage farm, for T.C. B.E. Dep. £1 1s.

Edinburgh.—Reconstruction.—Of Ward 24 at Bangour Mental Hospital, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Huntly.—Houses.—2 blocks of 4 3-apartment flatted houses at Bleachfield-st., for T.C. Thos. S. Hutson, B.S., 5, Duke-st.

Inverurie.—Houses.—8 houses in North-st., for T.C. B.S.

JANUARY 9.

Downpatrick.—Repairs.—To labourers' cottages in districts of Clough, Seaforde and Tyrella, for R.D.C. R. J. Carr, Clerk.

Guildford.—Houses.—4 non-parlour houses at Bellfields, Woking-rd., for T.C. J. W. Hipwood, B.S. Dep. £1 1s.

Newbury.—Enlargement.—Of calf ring at Cattle Market, for the Corporation. B.S.

Preston.—School.—Holme Slack junior and infants' school, for C.B. W. Platt, B.E. and S., Birley-st. Dep. £2.

JANUARY 11.

Bolton.—Houses and Flats.—On the Cameron-st. (No. 2) estate, for the Corporation. Town Clerk, Town Hall. Dep. £2 2s.

Bolton.—Shops.—On the Cameron-st. estate, for the Corporation. Town Clerk, Town Hall. Dep £2 2s.

Epsom.—Wiring.—Electrical installation for wiring, for U.D.C. H. W. Watts, Electrical Engineer, Electricity Works.

Erith.—Houses.—22 non-parlour type and 22 non-parlour type houses, for U.D.C. D. S. Twigg, clerk.

London.—Building.—Demolition of existing buildings and construction of diesel engine house, new weighbridge house and entrances, drainage and contingent works at Brixton pumping station, Waterworks-rd., Brixton-hill, S.W., for M.W.B. Chief Engineer, 173, Rosebery-av., E.C.1. Dep. £10.

New Maldon.—Pavilion.—Small wooden pavilion, Kingston-rd. recreation ground, for Maldens and Coombe U.D.C. R. H. Jeffes, S. Dep. £1 1s.

Richmond.—Hall.—New drill hall, for Territorial Army Association of Surrey. Jarvis & Richards, A. & F.R.I.B.A., 8a, Lower Grosvenor-pl., Westminster, S.W.1.

Rugby.—Painting.—At Lawford Heath Isolation Hospital, for Rugby Joint Hospital Board. M. E. T. Wratislaw, clerk, 16, Church-st.

JANUARY 12.

Athlone.—Building.—At Moydrum, Athlone, for high-power broadcasting station, for Commissioners of Public Works. T. Cassedy, Office of Public Works, Dublin.

Dublin.—Rebuilding.—Of National Maternity Hospital, Holles-st., for Governors. W. H. Byrne & Son, architects, 20, Suffolk-st. Dep. £10 10s.

Hornchurch.—School.—Council school at Rainham-rd., for Essex C.C. Jno. Stuart, F.R.I.B.A., County Architect, Chelmsford. Dep. £2 2s.

Isle of Thanet.—Repairs.—To cubicle block of Isolation Hospital, Haine, near Ramsgate, for Joint Hospital Board. F. M. Shea, L.R.I.B.A., Elm Tree Cottage, Omer-av., Cliftonville.

Tynemouth.—Repainting.—3 groups of houses on Balkwell housing estate, for C.B. John L. Beckett, B.S., 20, Howard-st., North Shields.

JANUARY 13.

Deptford Bridge, S.E.10.—Convenience.—For the Deptford B.C. Town Clerk, Town Hall, New Cross, S.E.14. Dep. £1 1s.

Edinburgh.—Building.—Valve-house at Portobello power station, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Leeds.—Improvements.—Tiling to bottom of large swimming bath at Cookridge-st. baths; asphalt lining to bottom of large swimming bath at Cookridge-st. baths; and structural alterations to East Moor school, Adel, for T.C. J. E. Acfield, City E.

London.—Railings.—1,400 ft. of 4 ft. 6 in. and 5 ft. 6 in. wrought-iron railings, for Deptford B.C. B.E. and S.

Mickleover.—House.—Medical Superintendent's house at County Mental Hospital, for Derbyshire C.C. County Architect, County Offices, Derby.

JANUARY 14.

Bentley-with-Arksey.—Installation.—Of electric light in special subjects block at Bentley-rd. Council school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Brampton Bierlow.—Installation.—Of electric light at new infants' school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Crossmaglen.—Repairs.—To labourers' cottages, for R.D.C. W. R. Bell, Clerk.

Dunscroft.—Building.—Removal of temporary school building from Edlington to Dunscroft Council school and erection of conveniences, for West Riding E.C. Education Officer, County Hall, Wakefield.

Kendal.—Abattoir.—Public abattoir buildings at Sandylands, for T.C. F. W. Oxberry, B.S. Dep. £2.

London.—Office.—New cartage office at Paddington Goods Station, for G.W.R. Engineer, Paddington Station, W.2. Dep. £2 2s.

Sheffield.—School.—Junior school at Hatfield House-lane, Shiregreen, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

JANUARY 15.

Croydon.—Building.—(a) Small extension to open air class-room at "Crosslands," 386, 388, London-rd., Croydon; and (b) small sun verandah at babies' block, Queen's-rd. Homes, Croydon, for C.B. H. Berney, architect, 33-35, High-st., Croydon. Dep. £1 1s.

Sheffield.—Sorting Office.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JANUARY 18.

Acton.—Flats.—Eight flats in two blocks at Brouncker-rd., W.3, for T.C. W. G. Cross, B.E. Dep. £2.

London.—Painting.—Cleaning, painting and repairs, Eastern Hospital, Homerton-grove, E.9; St. Luke's Hospital, Lowestoft; Chelsea Institution, Arthur-st., S.W.3; Westminster Institution, 367, Fulham-rd., S.W.10. Repairs to roads, yards and paths, Leavesden Mental Hospital, Abbot's Langley, Watford, for C.C. Chief Engineer, The Old County Hall, Spring Gardens, S.W.1. Dep. £1.

Walsall.—Shops, etc.—Shops and offices in Freer-st., The Square, Bridge-st. and Leicester-sq., for Corporation. B.S. Dep. £3 3s.

JANUARY 20.

Bangor.—Additions.—Alterations and additions to Bala-Bangor Independent College, Bangor, for Trustees. Principal Morgan Jones, Bala-Bangor College, Bangor.

Cranwell.—Heating.—Accelerated low-pressure hot water heating, etc., at Royal Air Force College, for H.M.O.W., Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

***London, S.W.6.**—Thames Flood Defence Works.—For Fulham B.C. T.C., Town Hall. Dep. £2.

JANUARY 21.

Cork.—Hall.—New city hall and municipal offices on site at Albert-quay, for Corporation. Jones & Kelly, architects, 17, South Frederick-st., Dublin. Dep. £10 10s.

Elland.—Repairs.—To Mirfield Knowl council school, for West Riding E.C. G. Dodgson, Education Office.

JANUARY 25.

Carlisle, Padiham and Kearsley.—Site Works, etc.—For Central Electricity Board. Secretary, Trafalgar-bldgs., 1, Charing Cross, S.W.1. Dep. £2 2s.

Portishead and Upper Boat.—Site Works, etc.—For Central Electricity Board. Secretary, Trafalgar-bldgs., 1, Charing Cross, S.W.1. Dep. £2 2s.

MARCH 1.

Uruguay.—Slaughterhouse.—Large slaughterhouse and plant, for Frigorifico Nacional. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. No. G.X. 10927.)

NO DATE.

Brechin.—Houses.—One block of four and one block of six three-roomed houses in Church-st. and City-rd., for T.C. B.S. Dep. £1 1s.

MATERIALS, etc.

JANUARY 4.

Evesham.—Roadstone.—For R.D.C. S., 64, Port-st.

Havant.—Cement, etc.—For U.D.C. C. E. Maynard, S.

Lindsey (Lincs).—Road Materials.—For C.C. A. G. Bradshaw, C.S., Newland, Lincoln.

Soke of Peterborough.—Granite, etc.—For C.C. H. Russell, C.S., Cross-st., Peterborough.

West Riding.—Road Materials.—For C.C. West Riding Surveyor, County Hall, Wakefield.

JANUARY 5.

Dover.—Tar.—For T.C. W. Boulton Smith, B.E.

Dover.—Granite Chippings.—For T.C. W. Boulton Smith, B.E.

London.—Pipes, etc.—For G.W.R. F. R. E. Davis, secretary, Paddington Station, W.2.

JANUARY 6.

Leeds.—Highway Materials.—For T.C. E. W. Cookerlyne, Highways E., 155, Kirkstall-rd.

London.—Highway Materials.—For Wandsworth B.C. D. A. Nicholl, T.C.

JANUARY 7.

London.—Granite, etc.—For St. Pancras B.C. E. W. Swinstead, B.E. and S.

London.—York Stone.—For Greenwich B.C. B.E.

Norfolk.—Highway Materials.—For C.C. S. H. Warren, C.S., Norwich.

JANUARY 9.

Blackburn.—Builders' Materials, etc.—For C.B. H. M. Webb, B.E.

JANUARY 11.

Chorley.—Road Materials.—For R.D.C. W. Catterill, S.

Fife.—Road Materials.—For C.C. J. M. Mitchell, County Clerk.

Johannesburg.—Tar.—4,250 tons of tar or tar substitute, for T.C. Dept. of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X.7204.)

Manchester.—Bronze Castings. Bertram B. Jones, Director of Public Cleansing.

JANUARY 12.

Leeds.—Setts.—1,500 tons of granite paving setts, for T.C. Chairman, Tramways and Transport Committee, Tramways Office, Swinegate.

JANUARY 15.

London.—Bricks, etc.—For Islington B.C. Chief Electrical Engineer, Electricity Works, 60, Edengrove, Holloway, N.7.

JANUARY 16.

Boxley.—Highway Materials.—For U.D.C. G. A. Joy, S.

Dorset.—Road materials.—For C.C. C.S., Dorchester.

Holland (Lincs).—Granite, etc.—For C.C. Wm. A. Rogerson, C.S., Boston.

Horsforth.—Highway Materials.—Jas. E. Aldersley, S.

***London, E.1.**—Builders' Materials.—For Stepney B.C. T.C., Municipal Offices, Raine-st., Old Gravel-lane. Dep. £1 (Treasury note).

Swinton and Pendlebury.—Tarmacadam.—For U.D.C. Henry Entwisle, S.

JANUARY 18.

London.—Highway Materials.—For Camberwell B.C. W. Bell, B.E. and S.

JANUARY 20.

Essex.—Highway Materials.—For C.C. R. H. Buckley, C.S., Chelmsford.

Gainsborough.—Road Materials.—For R.D.C. E. Donelly, S., 17, Morley-st.

***London.**—Highway Materials.—For Chelsea B.C. T.C., Town Hall, King's-rd., S.W.3.

JANUARY 22.

Belfast.—Builders' Materials.—For Electricity Dept. City Electrical Engineer and General Manager, East Bridge-st.

Farnborough. — Road Materials.—For U.D.C. J. E. Hargreaves, E. and S.

JANUARY 23.

Grimsby.—Road materials.—For R.D.C. J. B. Wikeley, E. and S.

JANUARY 25.

Lincoln.—Tar.—For Lindsey (Lincs.) C.C. A. G. Bradshaw, C.S., Newland, Lincoln.

JANUARY 28.

Southall-Norwood. — Highway Materials. — For U.D.C. J. B. Thomson, E. and S.

FEBRUARY 3.

Southend-on-Sea.—Building Materials.—For C.B. A. C. Johnson, Borough Electrical Engineer and Manager, 85, London-rd.

NO DATE.

Lancashire. — Refined Tar. — For C.C. P. Schofield, C.S., Preston.

ENGINEERING, IRON AND STEEL.

JANUARY 4.

Golborne.—Sewage.—Sewage disposal works at Golborne, for U.D.C. C. J. Lomax & Son, chartered civil engineers, 37, Cross-st., Manchester.

London.—Rebuilding.—Rebuilding and strengthening of granite parapet of river wall in front of Grosvenor-rd. and Pimlico-gdns., rebuilding at higher level of granite coping and railings in front of Grosvenor-rd. and consequent alterations to footway paving in Grosvenor-rd. and Pimlico-gdns., for L.C.C. Chief Engineer, Old County Hall, Spring-gdns., S.W.1. Dep. £2.

Newcastle.—Swimming Pond.—For U.D.C. Ferguson & McIlveen, engineers, 35, Scottish Provident-buildings, Belfast.

JANUARY 5.

Hinckley.—Sewerage.—Also sewage disposal works for parish of Stoke Golding, for R.D.C. E. H. Cramp, E., Barclays Bank-chambs. Dep. £3 3s.

JANUARY 6.

Axminster.—Tanks.—Sewer outfall and tanks adjacent to foreshore at Beer, for R.D.C. Lewis and Lewis, engineers, 15, Victoria-st., Westminster, S.W.1. Dep. £1.

JANUARY 7.

Llanfyllin. — Water Supply. — Provision and making of water supply and sewage disposal works at Llanfyllin, for T.C. Capt. W. M. Evans, E. Dep. £2.

Stockport.—Widening.—Existing over-bridge at Davenport Station, from 27 ft. to 50 ft., and approaches to same in Bramhall-lane, between Devonshire-rd. and Oakfield-rd., and excavating, sewering, forming, paving, curbing and flagging the existing and widened road over bridge and approaches, for C.B. Wm. F. Gardner, B.S. Dep. £2 2s.

JANUARY 11.

Birmingham.—Reconstruction.—Steel and concrete of superstructure of roving bridge over canal arm to Corporation Wharf, Cheston-rd., Aston, for T.C. H. H. Humphries, City E. and S. Dep. £2.

JANUARY 12.

Bute.—Widening.—In masonry, of road bridges, at Monymhor and King's Cross, Lamlash, Arran, for C.C. A. C. Crockett, Road Surveyor, Lamlash, Arran. Dep. £2 2s.

Durham.—Footbridge.—Lattice girder footbridge over River Tees at Cotherstone, for C.C. William J. Merrett, C.E. and S., 43, Old Elvet, Durham.

Kincardine-on-Forth.—Steelwork.—For bridge, for Joint Committee of C.C.'s of Stirling and Clackmannan. Sir A. Gibb & Partners, engineers, Queen Anne's-gate, S.W.1. Dep. £10 10s.

Selkirk.—Sewage.—Sewage disposal works, consisting of tanks, filters, and accessories; and of various sewers, for T.C. G. Thomson & Son, chartered civil engineers, 164, Bath-st., Glasgow, C.2. Dep. £2 2s.

JANUARY 13.

Wincanton.—Water Supply.—For Penselwood, for R.D.C. Aubrey J. Allen, E., Half Moon-st., Sherborne. Dep. £5.

JANUARY 14.

Cardiff.—Bridge.—Under Taff Vale Line near Whitchurch Station, for G.W.R. Engineer, Paddington Station. Dep. £2 2s.

JANUARY 16.

Cawood.—Repairs.—To bridge which carries Cawood to York County-rd. over River Ouse at Cawood, near Selby, for West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Dep. £1.

Glasgow.—Girders.—Steel plate girders and cross girders required for three bridges to carry the 48-in. syphon pipes over Aberfoyle to Glasgow-rd., near Balfron Station; L. & N.E. Railway at Balfron Station; and River Endrick, about 1¼ miles from Balfron Station, for T.C. Geo. Henshilwood, Engineer and Manager, Water Department, 50, John-st., Glasgow, C.1.

West Riding.—Reconstruction.—Of Upper Fox bridge, which carries County-rd. leading from Sherburn to Cawood over Ash Row Drain, Sherburn, Tadcaster, for C.C. West Riding Surveyor, County Hall, Wakefield. Dep. £1.

JANUARY 18.

Barking.—Tanks.—Joint pumping station storm-water tanks, storm-water outfall and appurtenant works at Barking, for Borough of Ilford and Borough of Barking. W. H. Radford and Son, engineers, Albion-chams., King-st., Nottingham. Dep. £5 5s.

Darlaston.—Drainage.—1,600 lin. yds. of stoneware, concrete and cast-iron storm-water sewers, varying in dia. from 9 ins. to 21 ins., together with manholes, gullies, gully connections, and other works, for U.D.C. Dodd & Watson, engineers, Wellington House, Bennetts Hill, Birmingham. Dep. £1 1s.

Dunblane.—Waterworks.—Additional filters, meter house, etc., at Kippenrait, for T.C. Warren & Stuart, engineers, 94, Hope-st., Glasgow. Dep. £2 2s.

Loughborough.—Reservoir.—Covered mass concrete reservoir at Blackbrook Impounding Reservoir, near Loughborough, for T.C. F. Walter Hodson, consulting engineer, Bank-chambers. Dep. £5 5s.

JANUARY 20.

Middlesex.—Sewerage.—Main sewers of brickwork, concrete and cast-iron segments for West Middlesex main sewerage, for C.C. Dodd & Watson, engineers, Wellington House, Bennetts-hill, Birmingham. Dep. £5 5s.

JANUARY 21.

Motherwell and Wishaw.—Drainage.—Construction of sewage purification works, Lower Carbarns, Wishaw, for T.C. B.E. Dep. £10 10s.

Oxford.—Sewerage.—5,022 yds. of stoneware pipe sewers, 9 in., 12 in. and 15 in. dia.; 763 yds. concrete tube sewer, 18 in. dia.; and 457 yds. 6 in. dia. cast iron rising main, together with manholes and other incidental works, in Barton, Old Headington, and New Marston districts, for T.C. J. F. Richardson, City E. Dep. £2 2s.

Sittingbourne and Milton.—Sewerage.—Sewage disposal works adjoining Milton Creek and for cast-iron rising mains and syphons, pumping stations and storm overflows, and other works incidental thereto, for U.D.C. A. P. I. Cotterell & Son, engineers, 54, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

FEBRUARY 15.

Johannesburg.—Bridgework.—1,790 tons of steelwork, troughing, etc., for the new Buffalo River Bridge, East London, for South African Railways and Harbours. Dept. of Overseas Trade, 35, Old Queen-st., London, S.W.1. (Ref. No. G.X. 11007.)

FEBRUARY 18.

Cairo.—Waterworks.—For Egyptian Ministry of the Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. No. G.X. 10962.)

ROAD, SEWERAGE, AND WATER WORKS.

JANUARY 4.

Eastbourne.—Making-up.—Of Eldon-rd., for C.B. L. Roseveare, B.E.

Hayes and Harlington.—Sewers.—2½ miles of concrete and stoneware sewers, varying in dia. from 6 in. to 36 in., together with manholes and other works incidental thereto, for U.D.C. E. A. Sandford Fawcett, E., 53, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

Slough.—Making-up.—Of Burlington-av., for U.D.C. A. Bromly, E.

Southampton.—Making-up.—Of Pitt-rd., Mill-rd. and Claremont-cres., for C.B. B.E. Dep. £1 1s. each.

Whitchurch.—Sewer.—Laying 400 yds. of 6 in. stoneware sewer, with manholes, for R.D.C. J. W. Simcox, S.

JANUARY 5.

St. Helens (I. of W.).—Sewer.—Laying 125 ft. of 12 in. cast-iron sewer outfall below low water mark at Seaview, I. of W., for St. Helens U.D.C. C. Pursey, S.

JANUARY 6.

Hove.—Making-up.—Roadway, providing and laying new granite kerbing and channelling and artificial stone slab paving, and other works in connection therewith in Holmes-av., for T.C. T. R. Humble, B.S.

London.—Paving.—Of Combemartin-rd., Southfield, and Hoadly-rd., Streatham, for Wandsworth B.C. E. J. Elford, B.E., 215, Balham High-rd., S.W.17. Dep. £1 1s.

Watford.—Sewerage.—5,200 lin. yds. of stoneware pipe, concrete pipe and cast-iron pipe, soil and surface water sewers, varying in size from 30 in. to 9 in. dia., together with manholes and other appurtenant works, for T.C. W. W. Newman, B.E. Dep. £5 5s.

JANUARY 7.

Leeds.—Paving.—Kerbing, flagging, tar paving Hesketh-rd., Hesketh-pl., Hesketh-av., Hesketh-terr., Morris-view, Morris-grove, Bk. Manor-terr., East Moor-rd. (part), and kerbing, tar paving footpaths and carriageway in Farm-hill (part) on Heanwood housing estate, for T.C. Highways Engineer, 155, Kirkstall-rd., Leeds.

Slough.—Sewers.—1,000 yds. approximately of 9 in. dia. stoneware pipe sewer, with manholes and incidental works, in Red Lion-rd. and Shaggy Calf-lane, for U.D.C. A. Bromly, E.

Teddington.—Sewer.—230 lin. yds. of Ferry-rd. surface-water sewer in 18 in. reinforced concrete pipes, with sundry appurtenant work, for U.D.C. E. Bostock, S. Dep. £2.

Twickenham.—Making up.—Of Elmsleigh-rd., for T.C. G. R. King, B.E. and S. Dep. £2 2s.

JANUARY 8.

Kilmarnock.—Roads.—(*a*) Completion of 4,000 sq. yds. of roadway and 2,600 sq. yds. of footpath; (*b*) laying of 1,540 lin. yds. of kerb and channel; and (*c*) other relative works in connection with finishing of roads at Townholm housing scheme, for T.C. W. Dunbar, B.S., Market Bridge.

JANUARY 9.

Isle of Thanet.—Making-up.—Of Seaview-rd.; Seaview-av.; Grenham Bay-av.; St. Mildred's-av., for R.D.C. G. L. Butterworth, S. Dep. £2 2s.

Penge.—Road.—Road improvement works in Anerley-rd., for U.D.C. Col. H. W. Longdin, S. Dep. £1 1s.

JANUARY 11.

Congleton.—Pipes.—2,000 tons of cast iron regular pipes and specials, for Odd Rode and district water scheme, for R.D.C. H. Lapworth, E., 25, Victoria-st., S.W.1. Dep. £2.

Ilkeston.—Pipes.—370 tons of cast iron regular pipes and specials of 16 in. and 14 in. dia., for T.C. H. Lapworth, E., 25, Victoria-st., Westminster, S.W.1. Dep. £2.

Leatherhead.—Making-up.—Of Highlands-av., also construction of 9 in. and 6 in. surface water sewers in Highlands-av. and Poplar-av., for U.D.C. S. R. Drake, S. Dep. £1 1s.

JANUARY 12.

Doncaster.—Sewerage.—In Chequer-rd. and Childers-st., for C.B. F. Oscar Kirby, B.E., 2, Prioryplace. Dep. £5 5s.

Kincardine-on-Forth.—Foundations.—Also piers, approach spans, roadway, fendering, etc., for new bridge, for C.C.s of Stirling and Clackmannan. Sir A. Gibb & Partners, Queen Anne's-gate, S.W.1. Dep. £10 10s.

Leeds.—Reconstruction.—Of certain streets, for T.C. Secretary, Tramways Office, Swinegate, Leeds.

Seer Green.—Repairs.—To footpaths in parish of Seer Green, for P.C. G. H. Smith, clerk, "Blakeney," Seer Green, Beaconsfield.

Sutton and Cheam.—Making-up.—Church Hill-rd., section 1; D'Arcy-rd.; Wordsworth-drive; Kenley-walk; Colborne-way; Farm-way, for U.D.C. Wm. Hedley Grieves, S. Dep. £1 1s. each.

JANUARY 13.

London.—Making-up.—Of Fairweather-rd. and mews rear of Stoke Newington High-st., for Hackney B.C. P. Holt, B.E. and S. Dep. £1 each.

Sutton and Cheam.—Drainage.—Laying, construction, completion and maintenance of concrete tube surface water sewers all in open cut, together with manholes and appurtenant works, for U.D.C. Wm. Hedley Grieves, E. and S. Dep. £3 3s.

JANUARY 14.

Leyton.—Paving.—Of Cavendish-drive and other roads, for T.C. A. P. Howell, B.E. and S. Dep. £10.

JANUARY 16.

Devizes.—Sewer.—150 yds. of 9 in. glazed stoneware pipe sewer on Caen Hill site, for T.C. A. W. Jakeway, B.S.

Hailsham.—Spraying.—Tarspraying about 200,000 super. yds. with distilled tar, for R.D.C. A. Carr, Clerk.

JANUARY 18.

Bromley. — Improvements. — In Holmcroft-way (part), for T.C. B.E. Dep. £1.

JANUARY 19.

Tottenham.—Reconstruction.—Of Lordship-lane from Wood Green boundary to Lordsmead-rd. and Bruce-grove in two coat asphalt approximately 12,000 sq. yds., for U.D.C. Capt. H. F. Wilkinson, E. Dep. £2.

Public Appointment

JANUARY 16.

***London, S.W.**—Junior Engineering Assistant required by Lambeth B.C. T.C., Town Hall, Brixton-hill, S.W.2.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Ambleside.—U.D.C. propose lavatories in Rothay pk

Ardsley.—U.D.C. propose 46 houses and 20 small-type houses, Black Gates housing estate and off Haigh Moor-rd., at £24,170. F. A Brown, S.—Additions to Perseverance Mill, East Ardsley, for J. Holmes & Sons, Ltd.

Armley.—Tenders invited for alterations and additions to "Commercial Inn" for Smith's Tadcaster Brewery.

Bakewell.—R.D.C. propose reservoir off Hawkhill-rd. and Highcliffe, Eyam. Engineers, Brady & Partington, Chapel-en-le-Frith

Baldock.—U.D.C. approved: 28 houses, Farm-lane. Full-Fashioned Hosiery Co., Ltd.

Barnard Castle.—U.D.C. approved conversion of Unitarian Chapel into concert hall for Vicar and Church Council.

Beadnell.—Mrs. Hall, Alexandra Hall, purchased "Beadnell Hall," which she intends converting into first-class residential hotel.

Biggleswade.—R.D.C. received M.H. approval to 26 houses at Arlesey.

Billingham-on-Tees.—U.D.C. to continue with scheme of constructing subway at Belasis-lane.

Billingham-on-Tees.—New schools, new church and presbytery for Roman Catholic community proposed. Eric Connell, priest-in-charge.

Birkenhead.—Mersey Tunnel Joint Committee approved plans for 6 ventilation stations.—Licensing justices approved alterations "Queen's Arms," Hinderton-rd., "Railway Hotel," St. Paul's-rd., Rock Ferry, and "Prince Alfred," Chester-st.—H. C. Killender, A.R.I.B.A., 62, Dale-st., Liverpool, preparing plans for bank premises, corner of Grove-rd. and Old Chester-rd.

Birmingham.—Corporation having recently acquired housing estate at Mill Pool Hill, close to existing estate at Mill Pool Hill, close to existing estates at Highters Heath and Yardley Wood, question of school accommodation for whole district been reviewed. In opinion of Elementary Education Sub-committee, senior school at Yardley Wood should be converted into senior school for boys only; new senior school for girls should be erected at Highters Heath; and site be obtained on Mill Pool-hill estate for possible further accommodation for juniors and infants.—Public Works Committee purchased estate at Stechford known as Glebe Farm estate, upon which they expect to build approximately 850 houses. School site been provisionally reserved.

Birmingham.—Lanchester & Lodge, FF.R.I.B.A., 19, Bedford-sq., London, W.C.1, architects for extensions to Hospital Centre, 165, Great Charles-st.

Blaydon.—U.D.C. to demolish slum dwellings at Winlaton and new houses to be erected to accommodate displaced tenants. Mr. Masthilo, S

Bournemouth.—T.C. approved: Shops and flats (corner) Tuckton-rd. and Southlea-av., A. H. Parks; 4 houses, Redbreast-rd. North. J. Kay.

Burnopfield (Durham).—M.H. sanctioned further 40 houses at Leazes by U.D.C.

Bury.—Bury and District Co-operative Society, Ltd., Knowsley-st., proposing to reconstruct central branch in Market-st. from new Co-operative Cafe to "Queen's Hotel." Plans prepared in Architects' Department, Balloon-st., Manchester, under supervision of W. A. Johnson, A.R.I.B.A.

Carlisle.—R.D.C. approved 12 houses off Wigton Main-rd. for Border Engineering Co.

Carnaigmore.—Argyllshire C.C. to erect new £11,000 school. George Wishart, architect, County-bldgs., Lochgilphead.

Cheadle.—U.D.C. recommending County E.C. to have plans prepared by County Architect for modern school, on Jonathan Robinson's site and provision of new school in Gatley area.

Cheshire.—E.C. propose 5 additional classrooms and workshop for Crewe Technical College, at £5,500. F. Anstead Browne, F.R.I.B.A., County Architect, New gate-st., Chester.—E.C. propose acquiring sites in Church Lawton and Holmes Chapel, for schools.

Chester-le-Street.—R.D.C. received sanction to a loan of £43,623 for 99 houses at Birtley and 37 at Fatfield.

Consett.—It is proposed to build church and church schools at £20,000 for Roman Catholic community.

Coventry.—General Works Committee recommend that memorandum in regard to negotiations in connection with Lockhurst-lane bridge be adopted.—E.C. approved new Council school at Moseley-av. at £16,919.—Housing Committee recommend that approval be given to 10 additional houses at Radford housing estate.

Cramlington.—U.D.C. considering offer of site by Mrs. Shaws-Storey adjoining west boundary of Newtown estate, for 40 small houses

Darton.—Members of United Methodist Church propose Sunday school at £1,000.

Deantown.—Midlothian C.C. are to erect 52 houses. C.S., Edinburgh.

Dewsbury.—General Purposes Committee of T.C. approved plans and estimates for £14,000 for new market hall on Cloth Hall site and land adjoining.

Dorking.—U.D.C. approved: Alterations to Red Lion Hotel, Mellersh & Neale; garage and coach station, Horsham-rd., South-st., East Surrey Traction Co., Ltd.; 28 houses, Cleardene estate, Chart-lane, A. & P. Clear.

Dover.—T.C. approved: Alterations to Turnpenny's premises, 46-53, High-st.

Dunston-on-Tyne.—Masonic hall proposed. S. J. Stephenson, 2, Saville-place, Newcastle, architect.

Durham.—F. Willey, F.R.I.B.A., 34, Old Elvet, instructed by County E.C. to prepare plans for branch libraries near Cumberland-crescent, Billingham-on-Tees, and near Haverton Hill post office, Haverton Hill.

Durham.—County E.C. negotiating for sites at Lanchester, West Stanley, Horden and Wheatley Hill for new schools. Plans by F. Willey, 34, Old Elvet, Durham.

Edinburgh.—Plans prepared for proposed city hostel of 28 single-apartment houses at Niddrie housing scheme. E. J. MacRae, City Architect.

Edinburgh.—Plans passed:—alterations and additions at South College-st. and Nicholson-st., A. McWilliam, architect, 105, Hanover-st., Edinburgh; reconstruction and additions at Bonnington-ter., Leith, H. Forsyth, architect, 76, Pitt-st., Leith; bungalows at Hailes-gardens and Lanark-rd., Thomas Cunningham, architect, 1, Shaughton-hall-place, Edinburgh; reconstruction and extension to garage at Roseburn-place and Roseburn-drive, A. L. Goodwin, architect, 34, Castle-st.

Edmonton.—U.D.C. approved: G. W. Newman, 72 houses, Cambridge Arterial-rd.; G. W. Newman, 51 houses on new road parallel with Cambridge-rd.; A. J. King & Co., extension of factory premises, Chichester-rd.; A. J. King & Co., shop premises and flats over 7, Church-st.

Elgin.—Murray & Nairn County Architect has plans in hand for £8,000 extension to Elgin Academy.

Felling-on-Tyne.—Amended plans for reconstruction of a cinema (destroyed by fire) into dance hall been approved by U.D.C. J. Adams, architect and surveyor, Durham.

Felling-on-Tyne.—U.D.C. to make application to Northern General Transport Co., Chester-le-Street, for provision of shelters for passengers at various sections of town.

Gateshead-on-Tyne.—Been decided to proceed with Methodist Church. S. J. Stephenson, 2, Saville-place, Newcastle, architect.

Goldthorpe.—Local branch of British Legion propose headquarters.

Great Eccleston.—Funds being raised for village hall.

Greenock.—Plans prepared for pitched steps and fence, etc., at Battery-pk. at £270. Robert Miller, Master of Works.

Hatfield.—R.D.C. proposing to utilise remainder of Briars-lane housing site at Hatfield for further 18 houses, and S. been instructed to prepare necessary scheme and make application to M.H. for approval. Clerk reported that Messrs. Moss, present contractors erecting houses on same site, were prepared to erect 18 houses at £300 per house.

Helensburgh.—Plans prepared for 36 houses on Old Luss-rd. J. N. Sterling, architect and engineer.

Hemsworth.—Members of Upton Wesleyan Church propose new edifice at £3,000.

High Wycombe.—T.C. approved: 20 houses, Hatters-lane, W. A. Hazell; 6 buildings, off Totteridge-cres., E. Maunder.

Highfield (Durham).—It is proposed to build a new R.C. school at £5,000. Architect, R. Burke, 17, Grey-st., Newcastle-on-Tyne.

Hinckley.—R.D.C. approved: Additions, Premier Hosiery works at Earl Shilton, J. Toon & Sons; British United Shoe Machinery Co.'s premises in High-st., Barwell.

Houghton-le-Spring.—R.D.C. approved: 76 dwellings by direct labour.

Inchinnan.—Renfrewshire Housing Committee approved of dwelling house, incubator house and sewage accommodation at Bargarron smallholding for R. Y. Montgomerie, Govan. A. G. Ingram, architect, Scottish Agricultural Department, Edinburgh.

Kettering.—Plans passed: Northants C.C. Public Assistance Committee, additions to laundry, London-rd.; Wicksteed Village Trust, office and garage, Wicksteed-pk., London-rd.; Marks & Spencer, shop, High-st.

Kingston-on-Thames.—T.C. approved: South-Western Sanitary Laundry, Villiers-rd., extensions. G. C. Woodward; 140a, London-rd., extension of service depot. H. C. Lambert; Riverside-close, 6 garages, Thorogood Bros. & Sons.

Leeds.—E.C. propose to reconstruct Sheepscar-st. and Meanwood-rd. schools. It is also proposed to convert Central Girls' High School buildings into premises for Yorkshire Training College of Housecraft.

Leeds.—Tenders invited for extensions to caretaker's living quarters at St. James's Church, Mabgate. Plans by F. L. Charlton, architect, Bond-st.

Lavan.—Corporation are to proceed with demolition scheme and erection of 20 houses at Bleachfield-row Burgh Architect and Surveyor.

Leyton.—M.H. sanctioned T.C.'s amended scheme to erect public swimming and slipper-baths at Bakers Arms at £110,000.

Liverpool.—Blackburn Philanthropic Assurance Co., Ltd., Cooper's-buildings, Church-st., acquired site, corner of Bailey-st. and Fontenoy-st., for head-quarters. Plans by W. P. Horsburgh, F.R.I.B.A., D.16, Exchange-buildings.—Morter & Dobie, L. and F.R.I.B.A., architects, The Temple, 24, Dale-st., prepared plans for church hall and alterations to church, Green-lane, for Parochial Church Council.

Liverpool.—New Presbyterian church and hall to be built at junction of Mather-av. and Booker-av. Morter & Dobie, architects.

London (Fulham).—B.C. received L.C.C. sanction to £4,329 for prevention of floods.—Borough Council recommend that application be made to Electricity Commissioners for sanction to borrowing £4,070 for sub-station, Fulham Court.—Council also recommend that scheme for widening Fulham-rd. outside 555-561 be now proceeded with; that 559 be demolished. Tenders invited.—Plans passed: A. E. Batzer, new buildings, 298, 300, 302, North End-rd. and 1a, Haldane-rd.; W. J. Marston & Son, additional building, 42, Vereker-rd.; A. J. Fuller, Electricity Dept., F.B.C., new building, sub-station, 168, Hurlingham-rd.

London (Lewisham).—B.C. instructed B.S. to invite tenders for repainting 41, Rushy Green.—Plans passed: Holland Hannen & Cubitts, Ltd., addition to the Forbanks sports pavilion, Beckenham-hill; S. W. Ackroyd, re-build and drain Nos. 65-67, High-st., Lewisham; The Highfield Estate Co., 8 houses, Bankhurst-rd.; Farebrother, Ellis & Co., proposed lay-out of houses on Northbrook estate, Lee, abut upon proposed new street between Baring-rd. and St. Mildred's-rd., Lee; Farebrother, Ellis & Co., shops at corner of Baring-rd. and Harland-rd., Lee.

London (Stepney).—Works Committee recommend alterations at Duke Shore Wharf and Gunthorpe-st. depot at £300.

Market Harborough.—U.D.C. proposing housing scheme on new by-pass road at £18,500.

Marley Hill (Durham).—It is proposed to erect miners' hall and institute to plans by S. J. Stephenson, 2, Saville-place, Newcastle.

Matlock.—Local St. John Ambulance Brigade propose drill hall, adjoining Town Hall.

Monk Bretton.—Site been acquired on new housing estate by Ecclesiastical Commissioners for C. of E. church and Sunday schools.

Morecambe.—Lancashire Education Sub-committee proposes to spend £15,800 on new branch library opposite Euston-rd. Station.

Newcastle-on-Tyne.—Drying tower and a bridge proposed at works of Thomas Hedley & Co., City-rd. Plans by firm's engineering staff.—It is proposed to improve 'bus station at Haymarket at £900.—T.C. approved sale of three acres of land north side of Coast-rd. to W. Bell, of Forth Banks for houses.—J. Oswald & Sons, 2, Worsick-st., architects for engine house in Bath-lane for Newcastle Breweries, Ltd.—Alterations proposed to "Bay Horse" hotel. S. H. Lawson, Emerson-chams., architect.—Marshall & Tweedy, 129, Pilgrim-st., prepared plans for 56 houses in Addycombe-ter. and Sackville-rd. for Alderson, Ltd., and Storey & Reid. Plans approved. No contracts let.—City Council to buy land near Glenthorne-rd. for public baths.—Tenders invited by City Council for building work in connection with proposed new nurses' home at Barrasford Sanatorium. F. H. Holford, City Architect.—Boiler house in Benton-rd. for City Council. Plans by City Property Surveyor.—Contract not yet been placed for vestry at St. Luke's Church, Claremount-rd. Wood & Oakley, 9, Eldon-sq., architects.—North of England Council of Cancer Campaign decided on definite scheme for radium institute. Cost £21,000. Newcombe & Newcombe, 23, Eldon-sq., architects.—Plans prepared by Merz & McLellan, Carliol House, for new sub-station in Ridley-place for Newcastle Electric Supply Co. No contracts placed.

Newton-in-Makerfield.—U.D.C. obtained sanction for building 50 houses.

North Riding of Yorkshire.—B. of E. approved plans for school at Redcar, Dormanstown, to accommodate 280 senior children. Board confirmed approval of Education Committee's action in purchasing site for school at Eston.

North Shields.—Alteration at Moor Park Hospital, at £4,250, been approved by Health Committee

Northumberland.—E.C. to purchase site at Choppington for infants' school; also extend existing council school at Choppington Guide Post. W. W. Tasker, F.R.I.B.A., 17, Claremount-place, Newcastle.

Oldbury.—E.C. to erect junior school for 400 at Bleakhouse at £10,250.

Otley.—U.D.C. approved: Additions to factory, Leeds-rd., Geo. Harrison & Sons.

Plymouth.—T.C. approved: F. Westcott, 8 houses, Cresthill estate; J. Binmore, 8 houses, Cresthill estate; W. Andrews, 12 houses, Cresthill estate; W. G. Perkins, 7 houses, new street off Kent-rd.; —. Hender, 14 houses, Lydford Park-rd.; A. C. Jones & Son, 17 houses, Browning-rd.; Plymouth Argyle Football Club, Ltd., extension of spectators' stand, Home-pk.

Pollington.—Funds being raised for village hall.

Pontefract.—General Infirmary Committee appointed Tennant & Smith, architects, Ropergate-chambs., Pontefract, to prepare plans increasing the present infirmary to 100 beds.

Prescall.—U.D.C. propose small-type houses in Smithy-lane. Plans by S.

Prosperous Colliery (Northumberland).—Tenders invited by Miners' Welfare Committee for pithead baths. Plans by J. H. Forshaw, Dean Stanley-st., Westminster, S.W.1.

*See also List of Contracts, Competitions, etc.

Saltcoats.—Plans prepared for 40 houses at Esplanade. H. Thompson, Housing Architect.

Sevenoaks.—R.D.C. decided, subject to approval, to purchase land at Dunton Green for £1,300 for housing.—Plans approved for houses at Westerham.

Shipton.—Scheme of additions to be carried out to premises in Water-st. for Sheldons, Ltd. Plans by A. & F. Moseleys, Ltd., architects, Wormald-row, Leeds.

South Shields.—W. Duncan & Sons to make alterations to premises in Stanhope-st. Plans approved. J. Walter Hansom & Son, 18, Eldon-sq., Newcastle-on-Tyne, architects. Contract not placed.

South Shields.—Contracts not yet placed for offices for Hanlon's, Ltd., and bakery for W. H. Parker. Architect, Howard Hill, L.R.I.B.A., 10, Winchester-st.

Stainton (Yorks).—Parochial Council of Parish Church proposed parish hall.

Stockport.—Parochial Council, Norbury Parish Church, Hazel-grove, propose parochial hall and extensions to Sunday school.

Stockport.—T.C. propose 12 shops, Didsbury-rd. housing estate. B.W.

Stoke.—T.C. approved: Mrs. S. Bostock, Cauldon-rd., Stoke, 6 houses; Mrs. E. Garrie, Frederick-st., Penkhull, 5 houses; The Burslem & District Co-operative Society, Ltd., Landon and Gravelly Bank, Longton, new shop premises; F. W. Woolworth & Co., 75 and 77, High-st., Tunstall, alterations, shop premises.

Stoke-on-Trent.—Trustees of Sutton Dwelling Trust Victoria Houses, Southampton-row, W.C.1, to erect six blocks of flats with six flats in each block on Abbey Hulton estate.

Sunderland.—Catholic Authorities acquired site, Hambleton estate, off Durham-rd., for church.

Tanfield.—U.D.C. received sanction from M.H. to build 40 houses at Leazes.

Thornaby-on-Tees.—T.C. approved plans, extensions, W. & M. Pumphreys, Stephenson-st.

Tynemouth.—T.C. to consider modified scheme for central garage accommodation to shelter Corporation vehicles.—Town Improvement Committee recommended application for grant for extending the sea wall at Cullercoats.

Tynemouth.—Contract not been placed for scheme to improve "Grand Hotel." Architects, Marshall & Tweedy, Mervyn House, Pilgrim-st., Newcastle-on-Tyne.—F. R. N. Haswell & Sons, 77, Tyne-st., North Shields, architects for 26 houses, North Chirton estate.—E.C. secured site in Silkey's-lane for school. J. L. Beckett, E.—River Tyne Improvement Commissioners approved £9,000 for repairs and alterations to north pier in Tyne harbour. Mr. Steele, Bewick-st., Commission's Engineer.

Upton.—Local authorities of Wesleyan Church considering scheme for church in township of Upton at £3,050.

Wakefield.—Electricity Committee to erect sub-station at Haddingley Hill. H. G. Fraser, City Electrical Engineer.

Wallasey.—Birkenhead Brewery Co., Ltd., Oxton-rd., proposes alterations to "Wellington Hotel." Plans by architects' department, Brewery Offices.

Walsall.—Particulars of improvement scheme to be carried out in centre of town been submitted by Public Works Committee to T.C.

Walsall.—T.C. propose extensions of Goscote Isolation Hospital and provision of block for treatment of tuberculosis.

Warrington.—Electricity Committee propose showrooms.—S. Percy Silcock, F.R.I.B.A., 6, Egypt-st., architect for Church on Elmwood-ave., for Congregational Union. Minister, Rev. E. P. Willcocks. "Elmwood," 14, Queen's-ave. Cost £5,000.

Warrington.—R.D.C. propose mortuary at Sankey.

Wednesbury.—B.S. has prepared revised lay-out plan for 172 houses on Park-lane site.—It was reported that area at Mesty Croft had sufficiently consolidated to admit further 16 houses to complete estate, and plans and estimates to be submitted.

Westslade.—U.D.C. received sanction to 96 houses at Dudley, Annisford, Seaton Burn and Wideopen. H. G. McNaught, S.

Whitley Bay.—U.D.C. considering acquiring site for bathing pool and site opposite "Waverley Hotel" been suggested.

Whitley Bay (Northumberland).—Brierdene Estate Co. Ltd., purchased 27 acres of land near golf course for development as garden city. Provision made for 300 houses. J. M. Fryer, 22, Ridley-place, Newcastle, agent to company.

Wigan.—Charity Association propose mission hall in Beech Hill-rd.

Wigan.—Members of Greenough-st. Independent Methodist Church propose primary department to school.—Schofield Bros., Ltd., 26, Lever-st., Manchester, acquired Poolstock Mills, Wigan, at £5,500.

Windsor.—T.C. approved: Alterations to "Duke of Edinburgh" public-house, Maidenhead-rd., Walney. Coombe, Reid & Co.

Wortley.—Trustees of Holdforth-st. Primitive Methodist Chapel to invite tenders for renovations to church and Sunday schools.

Wrangbrook.—Upton Colliery Co., Ltd., given site on housing estate for Church and Sunday schools at £1,700. C. of E. authorities accepted offer.

A Correction.

In the particulars of a new company which appeared in our issue of December 18, it was stated that Mr. Austin Blomfield, A.R.I.B.A., 1, New Court, Temple, E.C.4, was a director of the Wren's Property Development Co., Ltd., 61, Chancery-lane, W.C.2. This, we understand, is incorrect, Mr. Blomfield serving in the capacity of architect to the company.

TRADE NEWS

Shopfitters' Dividend.

Messrs. E. Pollard and Co., Ltd., the shopfitters, pay their final Preference Dividend on January 1, making 7 per cent. for the year 1931.

Reconstructed Farmhouse, Swanage.

With reference to the illustrations of a reconstructed farmhouse at Swanage (Mr. P. Morley Horder, architect), illustrated in our issue for December 18, we are asked to state that the contractors for the work were Messrs. Burt and Vick, of Poole.

Watford Maternity Home.

In our description of this building, which was illustrated in our issue for December 18, it should have been stated that the sub-contractors for the supply of joinery and fittings were Messrs. Allensor, Ltd., of Watford, Herts.

An Ealing Builder's Business.

The business of building contractor of the late Mr. Walter J. Dickens is to be carried on by his son at the offices, 19, Broadway, Ealing, W.5. The conduct of the business will be on the lines laid down by the late Mr. Dickens. The works are at the rear of New Broadway, Ealing.

"Gaumont Palace," Plymouth.

The Art Marbles, Stone and Mosaic Co., Ltd., 12, The Broadway, Westminster, S.W.1, inform us that they, in accordance with instructions received from the architect, Mr. W. H. Watkins, F.R.I.B.A., supplied and fixed the marble work to the entrance hall and entrance steps and the marble steps to the side exits from the entrance hall at the "Gaumont Palace," Plymouth, illustrated in our issue for December 18.

The London Colour Works.

Few people to-day associate drab Mile End with colour, although it is barely a century since the Whitechapel-road was lined by trees with only a building here and there. A finely reproduced plate of the Mile End gate, taken from an old coloured print, forms the front cover of the Fairfield Paint Company's New Year brochure, and gives an idea of the usual appearance of the neighbourhood in the early years of the nineteenth century. Old as the original of this print is, it is not older than the London Colour Works, which occupy to-day the same spot as they did a century and more ago. The brochure is produced in the manner we have come to associate with the name of Fairfield, and contains some excellent reproductions of buildings on whose decoration, both external and internal, the Fairfield products (Fairfield Twocoat Paint, Chynalyke enamel, and Fairfield Washable Distemper) have been used, during the past year, St. Mark's Church, Old-street; the Royal Northern and the Cancer Hospitals; the Elmwood School, Croydon; the "Gaumont Palace," Salisbury; etc., etc. Another job, the extension to Messrs. G. A. Harvey's factory, we illustrate below. It seems to us, in fact, that Mile End is still associated with colour, but colour that has ceased to be localised, and instead beautifies buildings over the length and breadth of the country.

Factory Extension, London, S.E.

MR. ALFRED ROBERTS, F.R.I.B.A., Architect.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry

PRINCIPAL CHANGES OF THE WEEK.—First quality Welsh Slates are down in price from 5s. for the smaller sizes, to 29s. 6d. for 22 in. by 12 in. Machine-made Tiles are down by 12s. 6d. per 1,000 and Handmade by 4s. Tin is up by 3d. per lb., and Solder by 1d. per lb. A decrease of 3d. per gallon is noted in Linseed Oil.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's-Cross	2 11 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 13 3	Bo. Bullnose	9 15 0
Do., Bullnose	3 5 3	Blue Wire Cuts	7 5 0
White Midhurst Facing Bricks (delivered London site)	5 0 0		

Best Stourbridge Fire Brick:—
2½ in. ..... 8 11 0 3 in. 10 3 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	20 10 0
Headers	20 10 0	D'ble Headers	26 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	One Side and two Ends	30 10 0
		Two Sides and one End	31 10 0
		Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. " "	2 4	4 in. "	3 6

	s. d.	
Thames Ballast	8 0 per yd	delivered 2 miles radius Paddington
Pit Sand	11 0 " "	
Thames Sand	11 0 " "	
Best Washed Sand	11 6 " "	
½ in. Shingle for Ferro-Concrete	8 6 " "	
¾ in.	11 0 " "	
1½ in. Broken Brick	10 6 " "	
Pan Breeze	8 0 " "	

Per ton delivered in London area in full van loads.
Best Portland Cement. British Standard Specification. Test £2 2 0 to £2 4 0
35s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 7 6
Vitocrete " "	0 7 6
Super Cement (Waterproof)	1 12 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	5 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" Pink	5 10 0
Plaste ,Coarse, Pink	3 0 0
" White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	1 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s 6d. if returned in good condition within three months carr. pd.
Stourbridge Fireclay in s'eks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE—RANDOM BLOCK—	
Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
CHILMARK—RANDOM BLOCK—	
At Nine Elms, per ft. cube	3 11
HOPTON-WOOD STONE—	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides "	22 6
Sawn three or four sides "	27 6
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London	
6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 3½
HARD YORK—	
Delivered at any Goods Station, London. Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	2 1½
3 in. ditto ditto "	2 10
2 in. self-faced random flags Per yd. super	8 0

CAST STONE

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 x 11	£24 10	3 x 6	£17 0
4 x 9	20 0	3 x 11	19 10
4 x 8	20 0	2 x 11	19 10
4 x 7	18 0	3 x 9	19 10
3 x 8	18 0	2½ x 9	19 10
3 x 7	18 0	3 x 4½	17 10
2½ x 7	18 0	3 x 4	17 10

PLANED BOARDS.

1 x 11	£22 10	1 x 9	£21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	16/-	1¼	25/-
¾	17/-	1½	27/6
1	20/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.
1	21/-
1¼	26/-
1½	27/6

MATCHING (BEST).

Inches.	per sq.
⅝	15/-
¾	16/6
1	20/-

ins. BATTENS.	s. d
⅞ x 2 ..... per 100 ft.	2 0

SAWN LATHS.

	s. d.
Per bundle	2 3

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cubs	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	£4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	30 0 0	18 by 10	16 10 0
22 by 12	26 10 0	18 by 9	14 12 6
22 by 11	24 10 0	16 by 10	14 5 0
20 by 12	24 0 0	16 by 8	11 0 0
20 by 10	20 2 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000.

	f.o.r. London.
Best machine-made tiles from Broseley or Staffordshire district	£4 10 0
ditto hand-made ditto	5 3 6
Ornament l ditto	5 8 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	
R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
" Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
⅜ in.	13 0 0	⅝ in. to ¾ in.	10 15 0
½ in.	11 0 0	⅞ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ⅜ in. and under.	Fittings. Over ⅜ in.	Flanges. ⅜ in. and under.	Flanges. Over ⅜ in.
	%	%	%	%	%	%
Gas	62½	50	43	47½	53	57½
Water	58½	46½	40	42½	50	52½
Steam	55	42½	35	37½	45	47½
Galv. gas	50	37½	35	37½	45	47½
Galv. water	45	32½	30	32½	40	42½
Galv. steam	40	27½	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/0½	2½d.
5 in.	1/5	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft. Pipe.	Bends, stock Branches, angles, stock angles.	
2 in. plain	1/2½	9½d. 1/2
2½ in. "	1/3	10½d. 1/3/4
3 in. "	1/6½	1/1½ 1/8½
3½ in. "	1/11	1/4½ 1/11½
4 in. "	2/2½	1/7½ 2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works

	Pipe, angles, stock angles.	Bends, stock Branches.
	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 1½	1 6½ 1 10½
2½ in. "	2 6	1 8½ 2 4
3 in. "	2 8	1 10½ 2 9½
3½ in. "	2 10½	2 4 3 3
4 in. "	3 3	2 7½ 3 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe, angles, stock angles.	Bends, stock Branches.
	s. d.	s. d.
3 in. per yd. in 9 ft. lengths	3 6	4 8 6 3
4 in. " cwt. qr. lbs.	1 1 20	5 2 3 10
5 in. "	1 2 22	6 3 9 0 14 3
6 in. "	2 0 6	6 11 10 11 15 1

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.
Common bars	10 10 0 to 11 0 0
Staffordshire Crown Bars Good merchant quality	10 15 0 to 11 10 0
Staffordshire Marked Bars	14 0 0 ... 15 0 0
Mild Steel Bars	9 10 0 ... 10 0 0
Steel Bars, Ferro-Concrete quality, basis price	8 0 0 ... 9 0 0
Hoop iron, basis price	11 0 0 ... 12 0 0
" Galvanised	27 0 0 ... 28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	11 0 0 ... 11 10 0
" 24 g.	12 0 0 ... 13 0 0
" " " 26 g.	14 0 0 ... 15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	13 10 0 ... 14 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	14 10 0 ... 15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	17 10 0 ... 18 10 0
No. 1 quality £4 per ton extra.	
Flat and Galvanised Corrugated Sheets— Ordinary sizes 6 ft. to 9 ft. to 20 g.	13 0 0 ... 14 0 0
Ordinary sizes 6 ft. to 9 ft. to 22 g. and 24 g.	14 10 0 ... 15 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0 ... 17 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	18 0 0 ... 19 0 0
Best Soft Steel Sheets. 22 g. and 24 g.	20 0 0 ... 22 0 0
Best Soft Steel Sheets, 26 g.	21 10 0 ... 23 0 0
Cut Nails, 3 in. to 6 in.	15 0 0 ... 16 0 0

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	23 10 0
Pipe in coils	24 0 0
Soil pipe	27 0 0
Compo pipe	27 10 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills per ton	£13 10 0

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	0 9½
Strong sheet "	0 10
Thin "	0 11
Copper nails "	1 0
Copper wire "	0 11

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
29/- 45/- 76/- 153/- 246/- 510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
41/6 62/- 92/- 174/- 300/- 588/- per doz

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in. ¾ in. 1 in.
30/6 60/- 116/6 per doz.

CAPS AND SCREWS.

1½ in. 1¾ in. 2 in. 3 in. 3½ in. 4 in.
7/6 10/- 14/- 22/- 30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 11/- 17/- 29/- 36/- 63/- per doz.

BRASS SLEEVES.

1½ in. 2 in. 2½ in. 4 in.
10/- 12/- 20/- 24/- 31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in. ¾ in. 1 in. 1¼ in. 1½ in.
25/- 56/- 98/- 162/- 228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in. 1½ in. 2 in. 3 in.
2 lbs. P. traps ... 33/- 41/- 56/- 101/- per doz.
3 lbs. S. traps ... 35/- 45/- 66/- 126/-

TIN.—English Ingots, 1/7 per lb. SOLDER.—Plumber's 9d., Tinmen's 10d., Blowpipe 11d. per lb.

*The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil, in pipes ..... per gallon ...	0	1	9
" " " in barrels ... " ...	0	1	11
" " " in drums ... " ...	0	2	2
Boiled " " in barrels ... " ...	0	2	3
" " " in drums ... " ...	0	2	5
Turpentine in barrels	0	4	6
" in drums (10 galls.) " ...	0	4	8
Genuine Ground English White Lead, per ton	47	10	0

(In not less than 5-cwt. casks.)
Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

GENUINE WHITE LEAD PAINT.
"Father Thames," "Nine Elms," "Park," "Sapcenius," "St. Paul's," "Morganawyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots. £ 63 s. 10 d. 0 per ton delivered ...
Red Lead, Dry (packages extra) ... per ton 33 0 0
Best Linseed Oil Putty ..... per cwt. 0 13 6
Size. XD quality ..... ftn. 0 3 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.
15 oz. fourths ... 2½d.	32 oz. fourths	7½d.
15 „ thirds ... 3½d.	32 „ thirds	9½d.
21 „ fourths ... 3½d.	Obscured Sheet, 15 oz.	5½d.
21 „ thirds ... 4½d.	„ „ 21 oz.	4½d.
26 „ fourths ... 4½d.	Fluted, 15 oz. 7d., 21 oz.	9½d.
26 „ thirds ... 7½d.	Em'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES. Per ft.

¼ Rolled plate	4½d.
⅛ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	6d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

"VITA" GLASS. Per foot. s. d.

Clear sheet—not exceeding 1 foot	1	0	
Do. do. 2 feet	1	3	
Do. over 2 feet	1	9	
Polished plate—not exceeding 1 foot	1	6	
Do. not exceeding 2 feet	3	0	
Cathedral—not exceeding 1 foot	1	0	
Do. larger sizes	1	6	
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 2 feet	1	0	
3/16 in. Wired Georgian Design. Sizes up to 106 inches long by up to 24 inches wide.....	2	6	

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Opal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	6
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	0
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	6
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	6
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	0
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebene		0	9	0
Cuirass Black Enamel		0	7	0

The Age of Steel.

The stone, the bronze and the iron age: by such tags have historians described bygone eras. When the history of this age comes to be written, it will surely be known as the age of steel. And yet no servant of man ever created such little comment as steel, which, by its almost monotonous integrity, has become a commonplace of life. But it is a commonplace on which our modern structure of life is based; is one of the few constants in an inconstant world. The British Steelwork Association in a well-printed and finely illustrated brochure has made an excellent effort to lift the veil under which steel hides itself, and to give an indication of the process and what it involves, particularly in relation to employment in other industries. How well they have succeeded is apparent from the brochure, which makes one feel proud that it can truthfully be said: "British Steel is Best." Every architect or constructor who employs steel can obtain a copy from Artillery House, S.W.1.

THE SCOTTISH BUILDER

HOUSING PROGRESS

The following figures show the progress that has been made in State-aided housing schemes in Scotland to November 30, 1931:—

	Completed.	Under construction.
1919 Act	25,129	—
do. (by public utility societies)	421	—
Private subsidy schemes (1919 Additional Powers Act)	2,324	—
Slum clearance schemes ...	14,241	1,233
1923 Act:—		
By local authorities ...	4,033	—
By private enterprise ...	20,652	2,382
By public utility societies	80	—
1924 Act:—		
By local authorities ...	53,783	6,073
By private enterprise ...	33,315	609
By public utility societies	127	16
1930 Act:—		
By local authorities ...	297	3,139
Unallocated Houses... ...	—	70
Demonstration Houses ...	17	—
Steel houses erected on behalf of Government by Scottish National Housing Company	2,552	—
	126,971	13,522

NEW BUILDINGS

Edinburgh.—HOUSING.—In connection with the Edinburgh Slum Clearance Scheme, warrants for the erection of another large batch of houses in the Niddrie Mains housing area were granted at a sitting of the Dean of Guild Court. Warrants were issued for 154 houses and two shops. Among other warrants granted were the following:—Paul Carroll—six bungalows interm at Captain's-road, Liberton; City—alterations at foreman's house at Cleansing and Lighting Depot, Balcarres-street; John Herdman & Sons, Ltd.—wheat storage bins and coal bunkers at Haymarket Flour Mills, Haymarket-terrace; John Kyles and William Brown—four houses and two garages at Craig's-avenue, Corstorphine; Scottish Naval and Military Veterans' Residence, Edinburgh—alterations at Whitefoord House, Calton-road.

Glasgow.—BUILDING.—The Master of Works reported to the Streets, Sewers and Building Committee that he had prepared plans for a four-story building on the ground acquired from Messrs. Forsyth, Ltd.

Huntley.—HOUSES.—Eight houses are to be erected in Bleachfield-street for the T.C. Mr. Thos. S. Hutson is the Burgh Surveyor. No contracts have yet been let.

Inverurie.—HOUSES.—Tenders are being invited by the T.C. for eight houses in North-street. The plans are by the Burgh Surveyor.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'† Bricklayers'† Plasterers'.†
Aberdeen	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Arbroath	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Ayrshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2 1/3
Berwickshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½
Broughty Ferry	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Clackmannanshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Dumbartonshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dumfries	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Dumfriesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dunoon	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
East Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Forfarshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Fort William	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/2
Galashiels	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Glasgow	1/7	1/7	1/7	1/8½	1/7	1/7	1/7	1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½
Hawick	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Helensburgh	1/7	1/7	1/7	1/8½	1/7	1/7	1/7	‡1/2½ †1/2½
Inverness	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	10d.–1/2
Inverurie	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7	1/2
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kincardineshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Kinross-shire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kirkwall	1/5	1/5	1/5	1/6	1/5	1/5	1/7	1/-
Lanarkshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Midlothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½
Peeblesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Perthshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Peterhead	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7	1/2
Renfrewshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Rothesay	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Roxburghshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
St. Andrews	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Selkirkshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Stirlingshire, West	1/6	1/6	1/6	1/6	1/6	1/6	1/7	1/1
Stornoway	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
West Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 30.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	9	9
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	4
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	27	0
Add if in underpinning in short lengths	„ „	6	0
Add if in floors 6 in. thick	„ „	2	6
Add if in beams	„ „	3	0
Add if aggregate 1 : 2 : 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	1	5	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork:—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks		4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarte -inch vertical damp course	„ „	9	6
Three-quarter-inch on flats in two thicknesses	„ „	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	0

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	„ „	22	0
Bath stone and all labour fixed	„ „	10	6
Beer stone and all labour fixed	„ „	15	0
Portland stone fixed	„ „	20	0
Chilmark stone fixed complete	„ „	17	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	„	80	9
Do. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	4	3
Do. joists	„ „	4	9
Do. roofs, floors and partitions	„ „	5	3
Do. trusses	„ „	7	9

		1"	1¼"	1½"	2"
Deal rough close boarding	per sq.	32/6	38/-	43/-	70/-
Flat centering for concrete floor, including struts or hangers	„				50 0
Do. to beams	per ft. sup.				0 9
Centre for arches	„				1 6
Gutter boards and bearers	„				1 0

FLOORING.

		1"	1¼"	1½"	1¾"
Deal-edges shot	per sq.	—	42/6	50/-	57/6
Do. tongued and grooved	„	—	47/-	56/-	64/-
Do. matchings	„	44/-	49/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	3
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights: average size	„	3	9

DOORS

		1¼"	1½"	2"
Two-panel square framed	per ft. sup.	2/1	2/3	2/5
Four-panel Do.	„	2/4	2/6	2/9
Two-panel moulded both sides	„	2/6	2/9	2/11
Four-panel Do. Do.	„	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	„	1/4	1/6	1/9
Add if cross-tongued	„	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail average, 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	12	0
Add if wreathed	„ „	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	3
Plain compound girders	„	18	0
Do. stanchions	„	20	9
In roofwork	„	26	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/4	1/7	1/9	2/-
Ogee Do. Do.	„	1/6	1/9	2/3	2/9
Rain-water pipes with ears	„	1/6	2/4	—	—
Extra for shoes and bends	each	3/4	4/11	—	—
Do. stopped ends	„	1/6	1/10	2/9	3/3
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	40	0
Do. Do. in flats	„	39	0
Extra labour and solder in coated cesspools	each	6	6
Welt joint	per ft. run	0	6
Soldered seam	„ „	1	3
Copper nailing	„ „	0	3

		½"	¾"	1"	1¼"	2"	4"
Drawn lead waste	per ft. run	1/1	1/7	1/10	3/-	3/6	—
Do. service	„	1/6	2/-	2/5	3/6	—	—
Do. soil	„	—	—	—	—	—	6/-
Bends in lead pipe	each	—	—	—	—	3/-	6/6
Soldered stop ends	„	1/-	1/4	1/9	2/6	3/2	—
Red lead joints	„	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	„	2/6	3/-	3/6	4/4	5/6	7/9
Lead traps and cleaning screws	„	—	—	—	12/7	17/6	—
Bib cocks and joints	„	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	„	15/4	17/2	25/8	64/-	—	—

PLASTERER.

			s.	d.
Render, float and set in lime and hair		per yard sup.	2	3
Do. Do.	Sirapite	„ „	2	6
Do. Do.	Keen's	„ „	3	6
Add saw lathing		„ „	1	7
Add metal lathing		„ „	2	6
(Not including hangers or runners, etc., for suspended ceilings.)				
Portland cement screed		„ „	2	2
Do. plain face		„ „	3	3
Mouldings in plaster		per 1 girth	0	1½
One-and-a-half granolithic pavings		per yard sup.	5	3

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	7½
26-oz. Do.	„ „	0	10
Obscured sheet	„ „	1	1
¼-in. rolled plate	„ „	0	9
¼-in. rough rolled or cast plate	„ „	0	10
½-in. wired cast plate	„ „	1	3

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	„ „	0	7
Plain painting, 1 coat	„ „	0	9
Do. 2 coats	„ „	1	2
Do. 3 coats	„ „	1	9
Do. 4 coats	„ „	2	4
Graining	„ „	2	3
Varnishing twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per foot sup.	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1 ½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works and*

Amersham.—Further 22 houses at Weller-road and New-road, and construction of paths and roads, for the R.D.C.:—
*H. J. & A. Wright, Ltd. £7,860

Barrow-in-Furness.—Rebuilding of the public hall in Cornwallis-street, for the Corporation. Mr. W. C. Persey, Borough Engineer and Surveyor. Quantities by the Borough Engineer and Surveyor:—
*H. Britton, Barrow-in-Furness £9,500

Basford.—Closet conversions at Greasley, for the R.D.C. Mr. S. Maylan, engineer and surveyor:—

G. Hutchinson & Son, Ltd., Sutton-in-Ashfield	£2,124 3 5
R. J. Jewell & Son, Ltd., Dunkirk	1,807 3 10
E. J. Boot, Beeston	1,753 0 0
J. Witham, Eastwood	1,546 12 4
Sydney Smith, Mansfield	1,438 1 0
F. G. Skerritt, Ltd., Nottingham	1,417 12 2
F. Sisson & Sons, Langley Mill	1,301 7 1
*E. Allcock & Sisson, Hill Top, Eastwood	1,271 17 5
J. Minkley, Brinsley	—

Basford.—Closet conversion scheme at Raddington, for the R.D.C. Mr. Stephen Maylan, engineer and surveyor:—

T. Smith, Wilford	£6,493 10 0
R. J. Jewell & Son, Ltd., Dunkirk	3,334 11 6
J. W. Forster, Washington Station	3,144 19 2
F. G. Skerritt, Ltd., Nottingham	3,064 14 0
E. W. Boddy, Nottingham	3,027 17 9
E. J. Boot, Beeston	2,960 5 8
*W. H. Orridge, Sherwood	2,903 1 0
Swift Bros. & Haslam Ltd., Doncaster	—

Beeston.—Semi-detached houses on the Tannery Field site:—
*Lynch & Parkinson.

Billingham-on-Tees.—Bridge over the railway at Cowpen-lane and the diversion and widening of Cowpen-lane, for the U.D.C.:—
*L. Brown & Son.
Bridge materials—
*Furness Shipbuilding Co., Haverton Hill.

Blackpool.—Alterations to Palatine Hotel, on the Promenade, for Messrs. Palatine Hotel & Building Co., Ltd. Messrs. R. B. Mather, Sons & Wilding, architects and surveyors, 34, Birley-street:—
*Atherton Bros. (Blackpool), Ltd., Blackpool.

Caithness.—Supplying and laying of five miles of c.i. pipes, 4 in. dia. and under, with fittings, intake works, reinforced concrete reservoir, etc., for Dunbeath water supply, for the C.C. Messrs. Jenkins & Marr, civil engineers, 16, Bridge-street, Aberdeen:—
*Kenneth Macrae & Co., Wick £4,134

Cannock.—Laying of cast-iron sewers and construction of sewage disposal works, comprising screening chamber, detritus percolating filters, humus tanks, pumphouse and sludge beds and other works for the sewage disposal works, Heath Heyes, for the U.D.C. Mr. Robert Blanchard, surveyor:—
*W. Kendrick & Sons, Walsall (provisionally).

Carlisle. — Conveniences at Pleasure-lane, Upperby:—
*F. & R. Bell, Ltd., Carlisle.

Chatham.—Business premises at 77, High-street. Mr. E. Bevington, F.S.I., architect:—
*Higgs & Hill, Ltd., Crown Works, London, S.W.8.

Darton.—34 non-parlour houses at Staincross and 26 non-parlour at Higham, for the U.D.C. Mr. J. H. Hinchliff, architect, Hill Top, Clapton West, near Huddersfield:—
*Clements Bros., Edenthorpe, Doncaster.
*C. D. Potter & Sons, Ltd., Barnsley.
(Subject to approval of the M.H.)

Doncaster.—Sewerage at Sprotborough, for the R.D.C. Messrs. D. Balfour & Sons, engineers, 3, St. Nicholas-buildings, Newcastle-on-Tyne:—
*W. Frith, Ltd., Doncaster £14,576
(Plus 4s. 6d. per cu. ft. for rock cutting.)
(Subject to approval of M.H.)

Dundee.—Painter work for the fourth portion of housing scheme, Easter Clepington, comprising 116 houses, for the Corporation. Official Quantity Surveyor, 91, Commercial-street:—
*P. McKerracher & Son, Ltd., 33, S. Portland-street, Glasgow, C.5 ... £715 5 2

East Ardsley.—Three pairs of semi-detached houses in Kesketh-lane:—
*F. Clough.

East Preston.—Sewerage work, for the R.D.C.:—
*W. Wilson & Co., Worsick-chambers, Newcastle-on-Tyne £107,106

Edinburgh.—Six bungalows at Craiglochart-road, Colinton. Messrs. Charles Tweedie & Son, architects, 54, Frederick-street:—
*W. McKendrick, 2, Charlotte-square, Edinburgh.

Edinburgh.—Villa at Barney-terrace, Corstorphine. Mr. S. T. MacDonald, architect, 2, Hamilton-Street, Greenock:—
*Hepburn Bros., Craiglochart, Edinburgh.

Edinburgh.—Forty-four bungalows at Christiemillar-avenue:—
*Hepburn Bros., Craiglochart, Edinburgh.

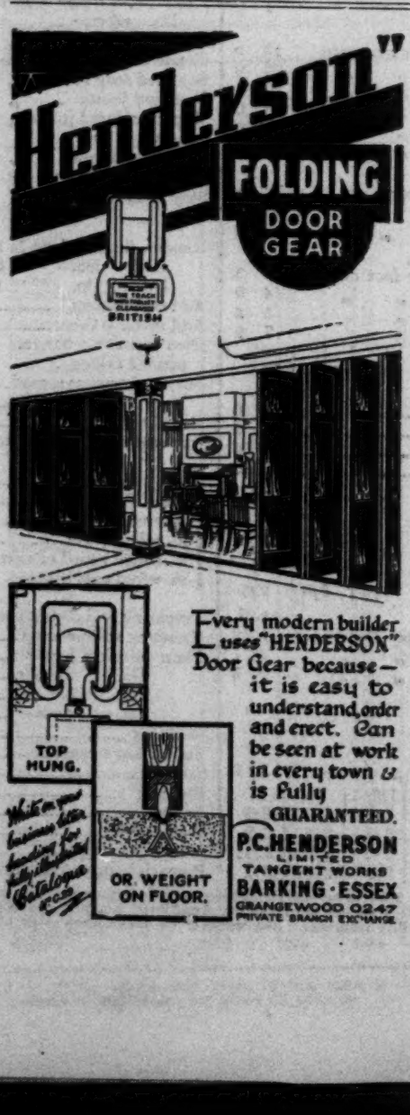
Edinburgh.—Eight houses, 1 to 8, Christiemillar-avenue:—
*Peter McLaren, St. Andrew's-square, Edinburgh.

Edmonton.—Plastering houses on the Montagu-road housing estate, for the U.D.C.:—
*Engineer £5,293

Giffnock.—Six four-roomed houses in Kilmarnock-road:—
*MacTaggart & Nickel, Ltd., 65, Bath-street, Glasgow.

Glasgow.—Glazier work, for the T.C.:—
Gaim-ad-road housing scheme—
*Earnest J. Johnstone, 128, Cambridge-street, Glasgow £345 10 0
Cuthbertson-street housing scheme—
*Baillie & Telfer, 5, Garnet-street, Garnethill, Glasgow 1,356 1 3

Glasgow.—Reconstruction and additions to Gartnavel Mental Institution. Messrs. John Burnett, Son & Dick, architects, 239, St. Vincent-street, Glasgow:—
Excavation, steel, mason and brick works, etc.—*T. Shaw & Campbell, Paton-street, Dennistoun.
Glazing, carpentry, joinery and ironmongery.—*Trustees of the late John Cochrane, 58, Dobbin Loan, Parliamentary-road.
Plaster work and terrazzo work—*W. Tonnar and Son, 153, North-street.
Slater work and roughcasting—*P. White & Co., Paul-street, Cathedral-street.
Plumber work—*Archibald Low & Co., Ltd. Markland Works, Markland-street, Partick.
(All of Glasgow.)



Glasgow.—Medical officer's house at Hawkhead Mental Hospital, for the T.C.:—

Digger, brick and mason works—	
*James Parker, Ltd., Riddrie, Bridgeton Cross	£940 0 0
Joinery, carpentry and ironmongery—	
*Lawson & Co. (Govan), Ltd., Park Saw Mills, Govan	576 11 1
Roof tile works—	
*P. White & Co., Ltd., 10, Paul-street, Cathedral	174 17 6
Plumber work, etc.—	
*McCulloch & Griffen, 47, Rose-street, Garnethill	170 0 0
Plaster work, etc.—	
*John Struthers & Sons, 90, Pitt-street	149 10 3
Painter work—	
*Cosmos Decorators, Ltd., 254, West George-street	107 18 6
Electric lighting—	
*D. Henderson, 80, Great Western-road	215 10 0

(All of Glasgow.)

Glasgow.—Additions to Elder Cottage Hospital, Govan. Messrs. John Burnet, Son & Dick, architects, 239, St. Vincent-street:—
Digger, brick and mason works, etc.—*R. Murdoch & Son, Maxwell-road, Pollockshields.
Joinery, carpentry and ironmongery works—*M. Hendersons & Co., 24, Grant-street.
Glazier work—*G. G. Kirk, Ltd., 20, Cook-street.
Plaster work and roughcasting—*G. Rome & Co., 33, Townsend-street.
Plumber work — *J. Summerville & Co. (Govan), Ltd., Helen-street.
Slater work—*W. Crawford, 10, Minerva-street.
Electric installation—*Malcolm & Allan, 499, Eglinton-street.
Concrete work—*R. Murdoch & Son, Maxwell-road, Pollockshields.
Heating engineering—*J. L. Saunders & Co., 84 Vincent-street.
(All of Glasgow.)

Glasgow.—Reconstruction and additions for Equitable Life Assurance Co., Colman-street, London, at 193, St. Vincent-street. Messrs. Laird & Napier, architects, 219, St. Vincent-street:—
*James Grant, Holland-street, Glasgow.

Glasgow.—Reconstruction at Gordon-street, for Glasgow Bakers & Purveyors. Mr. James Carruthers, architect, 209, St. Vincent-street:—
Excavating, brick and building works (principal contractors).—*Melville, Dundas & Whitson, 234, St. Vincent-street.
Joinery, ironmongery and carpentry works, etc.—*Trustees of John Cochrane, Dobbie-loan, Cowcaddens.
Plaster work, etc.—*George Rome & Co., Ltd., Townsend-street.
Plumber work—*Colin Turner & Co., Ltd., West Nile-street.
Heating engineering—*James Coombe & Son, Ltd., North Hanover-street.
Electrical installation—*Primrose & Primrose (1930), Ltd., 635, Great Western-road.
Steel windows, etc.—*The Crittall Manufacturing Co., Royal Exchange-place.
Granite work—*Scott & Rae, Ltd., 233, St. Vincent-street.
Painter work, etc.—*George Sellers & Sons, Blythswood-square.
Lifts—*Waygood, Otis, Ltd., 62, St. Vincent-street.
(All of Glasgow.)

Glasgow.—Reconstruction of the Blythswood United Free Church, Bath-street, into clinic, for Glasgow Ophthalmic Clinic, 28, Elmbank-street. Messrs. Stewart and Patterson, architects, 16, Blythswood-square:—
*Alexander Ferguson, 281, Bath-street.
Plumber work, etc.—*Robert Renfrew & Sons, Ltd., North-street, Charing Cross.
Plaster work, etc.—*Hugh Bathgate, Duke-street, Dennistoun.
Heating engineering work, etc. — *O. L. Saunders & Co., 259, St. Vincent-street.
Electrical installation, fitments, etc.—*D. B. & C. Selkirk, 100, Bath-street.
Glazing work, etc.—*Baillie & Telfer (Leading and Embossing), Ltd., 5 to 9, Garnet-street.
(All of Glasgow.)

Gloucester.—School in the Finlay-road area, for the E.C.:—
*J. Byard & Sons, Gloucester £18,282

Halifax.—Reconstruction of main road bridge over the L.M.S. Rly. at Salterhebble Hill:—
*Z. & W. Wade.

Harthill.—New footbridge at Edinburgh-road site, for the Lanarkshire C.C.:—
*William Cleghorn & Sons, Newmains.

Haydock.—12 parlour type houses on the Clipsley site, for the U.D.C. Mr. Chas. Dickinson, surveyor:—
*J. Mercer, Haydock, near St. Helen's.

Hessett.—Four semi-detached cottages in Hessett, for the Thedwastre R.D.C. Mr. H. E. Willes, clerk:—
O. Seaman & Son, Stowmarket £1,306

Hollingworth.—Alterations to existing tanks and the construction of new detritus tanks, bacteria beds, humus tanks and other work to outfall works, for the U.D.C. Messrs. Brady & Partington, engineers, Chapel-en-le-Frith :—
*Z. & W. Wade, Halifax.

Isle of Ely.—Garage in grounds of the County Hall, March, for the E.C. Mr. R. D. Robson, A.R.I.B.A., School Architect, County Hall, March :—
*H. G. Papworth, Gaul-road, March.

Keith.—New Town Railway Bridge, for the L.N.E. Railway Co. Railway Co.'s Engineering Department, Aberdeen :—
*M. Murray & Co., 121, West Regent-street, Glasgow.
Steel structural work—*W. Baird & Son, Annieland Engineering Works, Glasgow.

Knighton.—Construction of an outfall sewer and sewage purification works at Knighton, Radnorshire, for the U.D.C. Mr. P. Parker, clerk Quantities by Mr. F. J. Commin, consulting engineer, 5, Victoria-street, Westminster, S.W.1.
*John Richards, West-street, Knighton £6,368

Leeds.—Conversion of shop premises at 54, North-street into Lodge Premises, for the R.A.O.B. Mr. A. F. Dixon, architect :—
*C. Higgins.

Liverpool.—Alterations to Royal Court Theatre in Rowe-street, for the directors of Royal Court Theatres, Ltd., Queen's-square. Messrs. T. Wainwright & Sons, architects, Commerce-court, 11, Lord-street :—
Builders—*E. Ellis, Liverpool.
Decorations—*Waring & Gillow, Ltd., Liverpool.

Liverpool.—Alterations and additions to "D" Mill in Little Howard-street, for Messrs. R. Silcock & Sons, Ltd., Stanley Hall, Union-street :—
*Nicholds, Rawkins & Co.

Liverpool.—Additions to workshops for the Committee of the Liverpool Workshops and Homes for Cripples, Hampton-street, Upper Park-street. Mr. W. P. Horsburgh, F.R.I.B.A., architect, D.16, Exchange-buildings :—
*Knight & Lord, Liverpool.

¶London.—Contracts entereed into by H.M.O.W. for the week ending December 24 :—
Birchfields T.E., Wilmore-road, Birmingham—erection—W. B. & F. T. Archer, Rookery-road, Handsworth, Birmingham.
Garston, Liverpool, Post Office—alterations—J. Williams (Liverpool), Ltd., 70, Collingwood-street, Liverpool.
Teddington National Physical Laboratory, 1st Block, Chemical Research Laboratory—erection—Wilson Lovatt & Sons, Ltd., 569, Abbey House, 2, Victoria-street, S.W.1.
Ryde, Isle of Wight, P.O.—alterations—Wheeler Bros., 58, Monkton-street, Ryde.
Govan B.P.O.—alterations—R. Gilchrist & Sons, Ltd., 29-37, Stevenson-street, Glasgow (East).
Birkenhead District—ordinary works and repairs—R. W. Gill, Ltd., 36, Hamilton-square, Birkenhead.

London.—Alterations and redecorations at Royal Aero Club, 118-119, Piccadilly, W. Messrs. E. Keynes, Purchase & Roland Welch, F.R.I.B.A., architects :—
*Higgs & Hill, Ltd., Crown Works, S.W.8.

London.—Redecorations, etc., at 11, Hill-street, W. Messrs. W. H. Wigglesworth and A. G. R. Mackenzie, FF.R.I.B.A., architects :—
*Higgs & Hill, Ltd., Crown Works, S.W.8.

London.—Works in connection with erection of Mile End baths, for the Stepney B.C. :—
Marble wall tiling—*B. Finch & Co., Ltd., 238, Waterloo-road, S.E.1.
Oak balcony seating — *Wealdstone Joinery Works, Ltd., Harrow, Middlesex.
Supply and fixing of balcony guard rail and sup ly only of angle seat b arers—*Jukes, Coulson, Stokes & Co., Ltd., Plaistow, E.13.

London.—Construction of the third block of Limehouse Fields Improvement Scheme, for the Stepney B.C. :—

Building Works Manager, 671a, Commercial-road East, E.14 ...	£8,626	5
Addition for wages at rates payable to Council employees	350	0
Corolite Construction, Ltd., London	8,247	0
*Eastern Construction Co., 241, Romford-road, E.7 ...	8,146	0
Borough Engineer and Surveyor's estimate ...	8,986	0

London.—Supplying a polished "Staybrite" steel handrail, with the necessary brackets, for fixing round the swimming-pool of the first-class bath at the Whitechapel Baths in place of the present galvanised rail, for the Stepney B.C. :—
*London Metal Warehouses, Ltd. £172

London.—Electrical installation at Block No. 8 on the L.C.C. Collingwood estate, for the Bethnal Green B.C. :—
*Alpha Manufacturing & Electrical Co., Ltd., 26, High-road, Balham, S.W.12.

Macclesfield.—Three-story additions to offices in Brook-street and Union-street, for Messrs. Hovis, Ltd. Mr. F. Fowler, architect, Westminster Bank-chambers :—
Contractor—*G. Rylance & Co.
Plumber—*Davies & Proctor.
Electric lift—*W. J. Furse & Co., Ltd., Nottingham.
(Rest of Macclesfield.)

Mayfield.—12 houses, for the Uckfield R.D.C. :—
*H. J. Hubble, 7, East-street, Tonbridge ... £4,510

Mexborough.—Nurses' home at Adwick-road, for the Building Committee of the Nursing Association. Mr. D. Harrop, architect, Bank-street, Mexborough, near Rotherham :—
†J. A. Pugh, Rotherham.

Milngavie.—16 houses, for the T.C. Mr. F. A. B. Preston, L.R.I.B.A., Housing Architect, 6, Buchanan-street, Milngavie. Quantities by Mr. James Stark, F.F.S., 219, St. Vincent-street, Glasgow :—

Brick, stone, etc., works—			
*Robert Lamont & Son, Milngavie	£2,928	11	4
Carpenter, joiner, etc., work—			
*Andrew Scott, Strathblane ...	1,550	14	9
Slater, roughcast, etc., work—			
*John Wallace & Sons, Chryston	579	3	6
Plumber work—			
*McCulloch & Giffen, Glasgow ...	717	4	10
Plaster work—			
*Archibald McKeller, Glasgow ...	336	6	5
Iron fencing and gates—			
*Alex. Peters, Ltd., Glasgow ...	114	12	9
Painter work—			
*Peter McKerracher & Sons, Ltd., Glasgow ...	145	2	6

Newcastle.—New elementary school at Cowgate, which will provide places for 1,380 children, for the T.C. :—
‡R. Blackett & Sons, Darlington £55,694

Newcastle-on-Tyne.—10 houses in McDonald-road. Mr. F. M. Dryden, architect, Market-street :—
*E. Bruce & Sons, Denton Bank West.

Newcastle-on-Tyne.—12 shops in Kenton-lane. Mr. S. J. Stephenson, architect, 2, Saville-place :—
*Bewley & Scott, Dunston-on-Tyne.

Newton Abbot.—Eight houses at Denbury, for the R.D.C. :—

H. C. Jackman ...	£4,299
A. P. Yeoman ...	3,310
Torquay Building Co. ...	3,280
R. E. Narracott ...	3,178
J. W. Cox & Son ...	3,065
Bickford & Hooper ...	3,024
T. Brook ...	3,024
F. J. Eales ...	2,950
‡Carpenter & Mayne ...	2,946

Nottingham.—Warehouse and new basin at Trent-lane, for the Trent Navigation Committee of Nottingham City Council :—
*Wellerman Bros., Sheffield.

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Oswaldkirk.—New sewage works, for the Helmsley R.D.C. Messrs. Silcock, engineers, Park-row, Leeds :—
*L. T. Oldfield ... £1,668

Oswestry.—Houses, for the Corporation. Capt. T. Ridge, architect, Oswestry. Quantities by the architect :—
†Herbert Hughes, Acrefair, near Wrexham ... £8,737

Ottershaw.—Alterations to Anningsley-park. Mr. H. W. Currey, F.R.I.B.A., architect :—
*Higgs & Hill, Ltd., Crown Works, S.W.8.

Paisley.—Residence at Stoney Brae, Potterhill :—
*W. McGhee & Son, Greenock-road, Paisley.

Paisley.—Demolition scheme and erection of large building at Causeyside-street, for the Paisley Co-operative Manufacturing Co., Ltd., Dunn-square. Mr. Hamilton Neil, architect, 163, St. Vincent-street, Glasgow :—
Excavating, brick and mason works, etc.—*W. McGhee & Son, Underwood-street, Paisley.
Marble work, etc.—*Toffolo, Jackson & Co., 110, West Regent-street, Glasgow.
Steel construction work—*Fleming Bros., 65, Barr-street, Renfield, Glasgow.
Carpentry, ironmongery and joinery works—*Wm. T. Knox, Builder, 30, Gordon-street, Paisley.
Metal windows, etc.—*Frederick Braby & Co., Ltd., Pietershill-road, Springburn, Glasgow.
Plaster work, etc.—*Robert Jolly & Sons, 72, Coburg-street, Gorbals, Glasgow.
Asphalt work, etc.—
*Limmer & Trinidad Lake Asphalt Co., Hope-street, Glasgow.
Glazing work — *James McGhee, 76, Great Western-road, Glasgow.
Cement work—*William McGhee & Son, Underwood-street, Paisley.
Tile and terrazzo work—*Toffolo, Jackson & Co., 110, West Regent-street, Glasgow.
Slating work—*John Paterson, slater and roughcaster, etc., Paisley.

Perivale.—Factory in Western-avenue. Messrs. Wallis, Gilbert & Partners, architects, 29, Rolandgardens, S.W.7 :—
*Higgs & Hill, Ltd., Crown Works, London, S.W.8.

Plymouth.—Reconditioning 5 and 6, North Prospect, for the C.B. :—
*A. N. Coles (Contractors), Ltd. £615 10

Pontefract.—36 houses at Airedale, Castleford, for the R.D.C. Messrs. Tennant & Smith, F.I.A.A., L.R.I.B.A., architects, Ropergate-chambers :—

Builders—			
*Brown & Lodge, Pontefract ...	£5,303	13	10
Joiners—			
*C. ambers & Sharpe, Airedale ...	2,057	4	4
Tiler—			
*W. P. Allison, Castleford ...	668	0	0
Plumbers—			
*G. E. Barff, Pontefract ...	1,282	4	9
Plasterers—			
*F. Beighton & Son, Castleford ...	759	12	9
Painters—			
*Pickles, Ayland & Co., Ossett ...	198	0	0
Roads and sewers—			
*Barber & Heseltine, Pontefract	733	0	0

Poole.—Bathing pavilion, etc., at Branksome Chine, for the T.C. Mr. E. J. Goodacre, Borough Engineer and Surveyor :—
*Walter Hoare & Sons, Avon Works, Avon-road, Bournemouth ... £5,428

Renfrewshire.—Twenty four-apartment houses on new roads, south of Burnfield-road :—
*J. & J. Dixon, Kilmarnock-road, Giffnock.

Renfrewshire.—Twelve five-apartment houses at Glasgow-road, Hillington, Ralston :—
*James Y. Keenie, Ltd., Floors-street, Johnstone.

Renfrewshire.—Nine four-apartment houses at new roads, Barnfield-road, Giffnock :—
*J. & J. Dixon, Kilmarnock-road, Giffnock.

Rochdale.—Alterations to the "Commercial Inn" Milnrow-road, for the Bury Brewery Co., Ltd. George-street, Bury. Mr. A. Pursglove, A.R.I.B.A., architect, 79, Mosley-street, Manchester :—
Builders—*Thompson & Brierley, Ltd., Bury.
Plumbing—*Crossley Bros., Bury.

Rutherglen.—Thirty-six bungalows at Burnside, Rutherglen. Messrs. J. J. Craig & Sons, architects, 219, St. Vincent-street, Glasgow :—
*James Laidlaw & Sons, Ltd., Playfair-street, Bridgeton, Glasgow.

Rutherglen.—16 houses at South Hill-avenue, Burnside. Messrs. J. & J. Craig & Sons, architects, 219, St. Vincent-street, Glasgow :—
*James Laidlaw & Sons, Ltd., Playfair-street, Glasgow.

Scarborough.—Patent stone parapet to Peasholm Glen bridge, for the T.C. Mr. Harry W. Smith, Borough Engineer and Surveyor. Quantities by the Borough Engineer and Surveyor :—
*The Hull Concrete Stone Co., Ltd., Stoneferry, Hull.

St. Asaph.—Concrete dam and other works, for the R.D.C. Mr. C. F. Farrington, engineer, Trinity-square, Llandudno:—

*R. Hughes & Co., Ltd., Colwyn Bay.

Stoke-on-Trent.—New assembly hall and citadel in Fletcher-road, for the Salvation Army Authorities, Queen Victoria-street, London, E.C.4:—

*J. Kelly, Stoke-on-Trent.

Southampton.—Adaptation of part of the Southern District school for the purpose of handicraft and domestic science instruction, for the C.B.:—

Theo. Conway, Ltd., Weymouth	£1,097 0
Brazier & Sons, Ltd.	1,089 0
Jenkins & Sons, Ltd.	1,027 0
Frank Kimber & Son	995 0
J. Bates & Sons, Hedge End	968 9
A. Saunders	944 7
W. A. Fussell	932 17
J. J. Udall's Building Co., Ltd.	920 0
*H. Stevens & Co., Ltd., Southampton	909 0

(Borough Engineer's estimate: £905.)
(Remainder of Southampton.)

Stirlingshire.—New pithead baths at Plean Colliery, near Larbert. Mr. J. H. Forshaw, architect to Miners' Welfare Committee:—

Excavating, brick and mason works, etc.—*Coroboy & Obrien, 206, Wallace-street, Stirling.
Steel construction work—*Lambhill Ironworks, Ltd., Strachar-street, Lambhill, Glasgow.
Plumber work, etc.—*J. & J. Duff, Main-street, Bannockburn.
Carpentry, joinery and ironmongery—*D. Stewart & Sons, East Murray Field, Bannockburn.
Fibrous plaster work—*Milne & Co., Ltd., 48, Port-street, Stirling.
Asphalt work—*Limmer & Trinidad Lake Asphalt Co., Ltd., Hope-street, Glasgow.
Bricks for building—*Darngavie Brick Works, Ltd., Darngavie.
Cement for building—*Caledonian Portland Cement Co., Ltd., 29, St. Vincent-place, Glasgow.
Windows for building—*Henry Hope & Sons, Ltd., Smethwick, Birmingham.
Flooring for building—*Coroboy & Obrien, 206, Wallace-street, Stirling.
Glazed tiles for building—*The Stourbridge Glazed Brick Co., Ltd., Blowery Green, Dudley.
Glazing work, etc.—*George Kirk, Ltd., 71, Port-street, Stirling.
Doors for building—*D. Stewart & Sons, East Murray Field, Bannockburn.

Tamworth.—164 houses and construction of roads and sewers on Bolehall site, for the T.C. Mr. A. Oswald Marshall, surveyor:—

*Eadie Towers & Co., Wolverhampton £56,544

Thorne.—100 houses at Moorends, for the R.D.C.:—

*Whittington, Ltd., Doncaster.

West Hartlepool.—Building containing hall and institute in Stratford-road, for the parishioners of St. Cuthbert's. Mr. W. C. Mangan, architect, 18, Guildhall-street, Preston:—

*W. Pearson & Son, West Hartlepool.

Wincanton.—Twenty houses at Queen Camel, for the R.D.C.:—

†R. Shepherd, Sherborne £6,700

Wrexham.—Electric wiring of the houses at Acton-park, for the T.C.:—

F. Lloyd, Flint £1,929
†Clifford Pressland, Kingston-on-Thames 1,838

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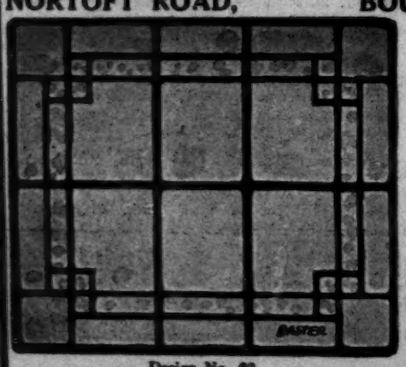

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